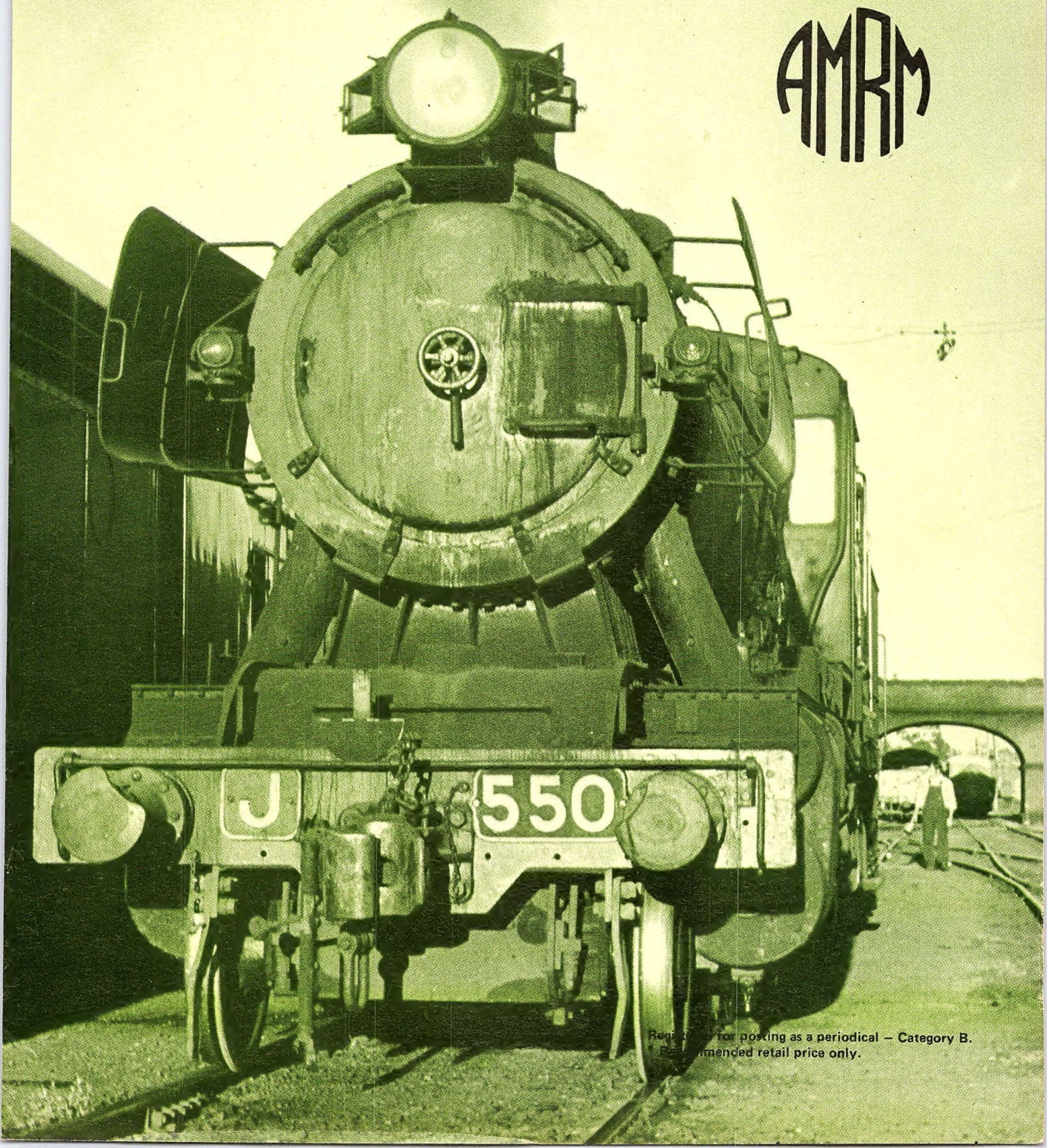
Australian
NOVEMBER/DECEMBER 1978. ISSUE 93. Vol. 8 No. 12
90c*

MODEL RAILWAY

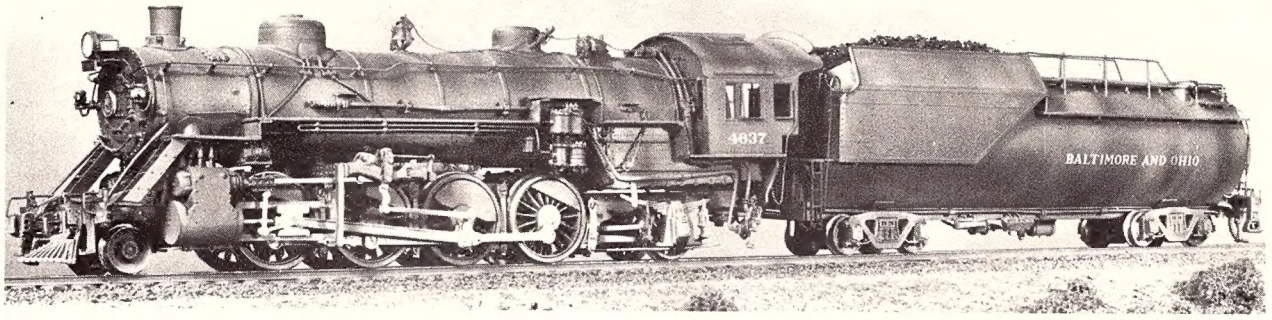
Magazine

AMRM

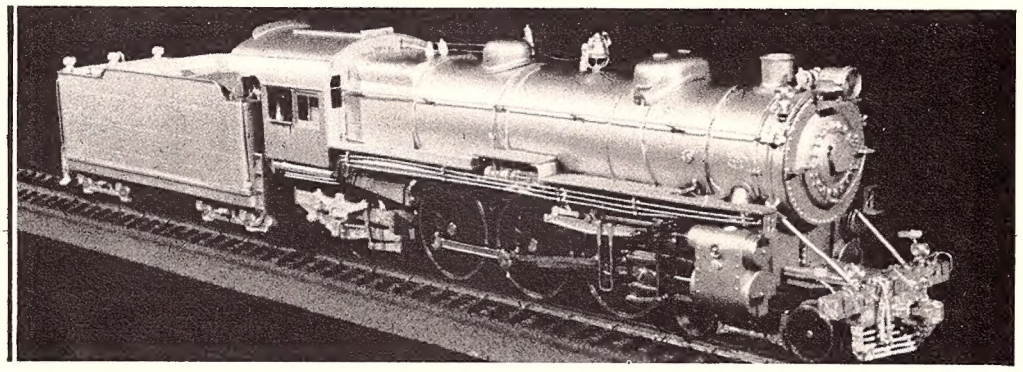


Registered for posting as a periodical — Category B.
Recommended retail price only.

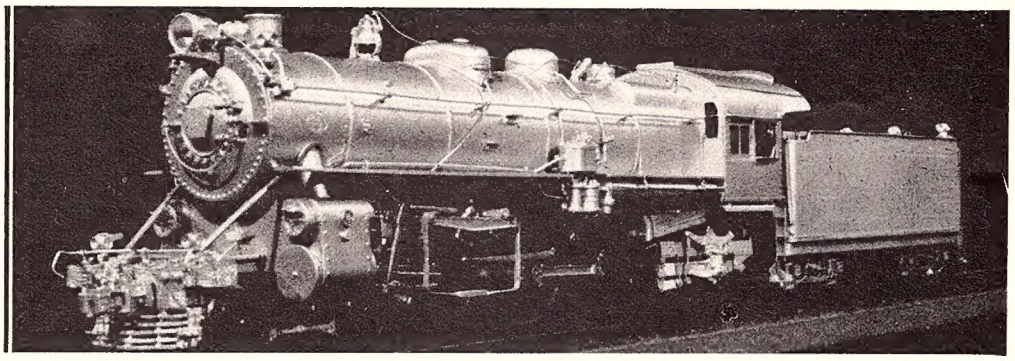
NEW DELIVERIES IN MOTIVE POWER — FROM THE SHOPS OF "WESTSIDE".....



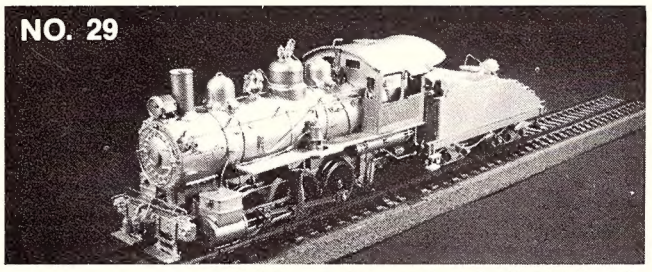
H0 SCALE B. & O. 'Q-4d' 2-8-2 LOCO. & TENDER. MODEL SUPPLIED UNPAINTED. PRICE: $232.25.

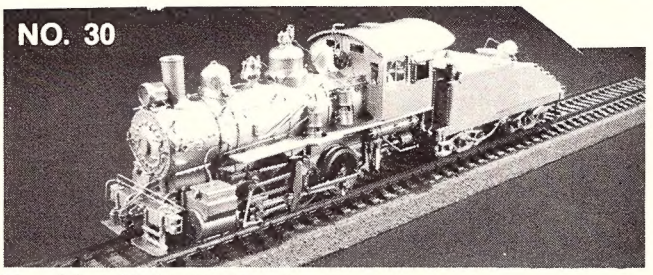


H0 P.R.R. 'K-2' SERIES PACIFIC PRICE: $212.50

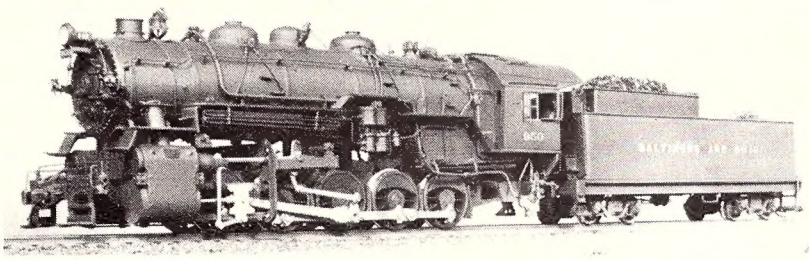


H0 P.R.R. 'K-3' SERIES PACIFIC PRICE: $212.50





H0 MA. & PA. 0-6-0 SWITCHERS: No. 29, WITH SINGLE AIR PUMP AND STEPHENSON VALVE GEAR. No. 30, WITH DUAL AIR PUMPS AND WALSCHAERT VALVE GEAR. PRICES: No. 29, $188.50; No. 30, $192.25.



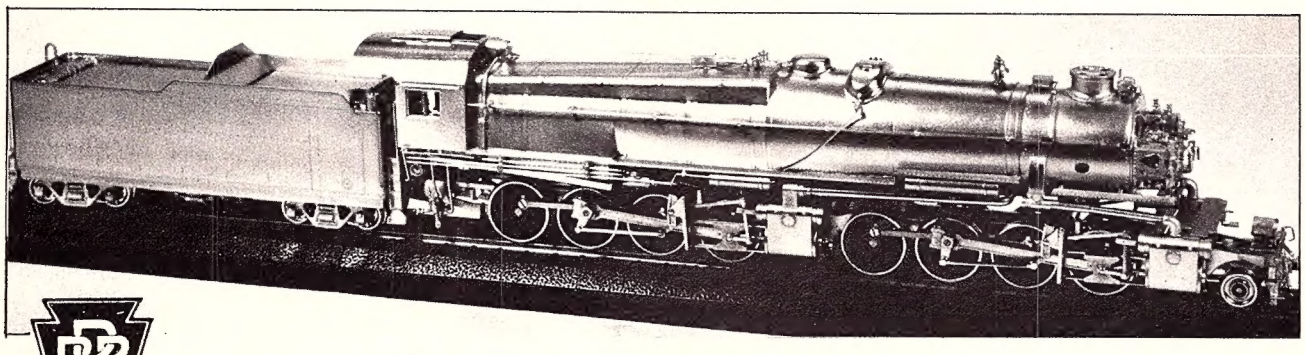
H0 B. & O. 0-10-0 'U-1' SERIES LOCO & TENDER THE MOST POWERFUL NON-ARTICULATED SWITCHER EVER BUILT. PRICE: $221.50.

SOLE AGENT & IMPORTER

THE MODEL DOCKYARD PTY. LTD.

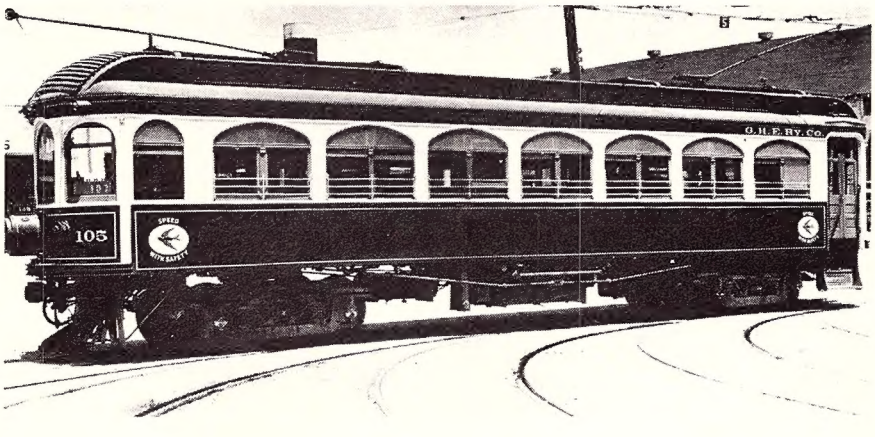
216-218 SWANSTON ST. MELBOURNE. PHONE: 663 3505

NEW DELIVERIES IN HO SCALE — FROM THE SHOPS OF KUMATA.....



P.R.R. 'HC-1' 2-8-8-0 LOCOMOTIVE AND TENDER.
MADE TO THE ORDER OF CUSTOM BRASS. PRICE: $729.00.

'BLUEBIRD' CAR OF THE GALVESTON-HOUSTON ELECTRIC RAILWAY. AMERICA'S FASTEST INTERURBAN, 1925-1926. THE FINEST H0 SCALE ELECTRIC CAR YET! FEATURING VERTICALLY MOUNTED CAN MOTOR WITH DIRECT GEAR DRIVE, PICK-UP ON ALL WHEELS ETC. PRICE: $227.50. (View of Prototype)



Other News from the Dockyard . . .

By the time these notes appear in print, large shipments of H0 and N scale structure kits are due to arrive from both Heljan and Faller . . . Fresh stocks of Viking H0 and N scale motor vehicles are now available including many new items. Check with your nearest stockist of 'Dockyard lines, or send a SSAE for covering Price List . . . . From Shinohara, the new N scale Code 70 3-Way Turnouts are now available @ $16.70 each, in addition to the 30, 45, 60 and 90 degree Crossings @ $5.85 each . . . . The H0 brass Canadian GP-40 and GP-40-2 Diesel Locomotives, outshopped by Kumata, are now available @ $226.95 each . . . . Tenshodo are tooling for a re-run of the GN-NP-SP&S 'Z-8' Series 4-6-6-4 Locomotive. Meantime, stocks of the GN 'L-1' Series 2-6-6-2 Locomotive are expected to arrive in early October . . . . More Suydam H0 Baldwin Motor Truck Set, less motor, are now available. Also, more Tenshodo 'GP' Geared Diesel Truck, less motor @ $37.45 per set . . . . Due before the close of the year are the H0 Key 'Classic' AT&SF '3765' Series 4-8-4 Locomotive, Westside H0n3 RGS No. 74 Consolidation and H0 'C-1' 3 Truck Shay Geared Locomotive, Overland U.P. '5090' Series 4-10-2 Locomotive and Alco Models' Ma. & Pa. 4-4-0 Locomotive . . . . For traction fans working in H0 scale, now in stock are the North Shore No. 410 Observation Trailer, No. 410 Motor Coach, No. 420 Observation Trailer and No. 420 Motor Coach. Powered units $166.50 each. Unpowered, $143.85. Due about October '78 are the P.E. 5050 Series 'Hollywood' Cars, powered and unpowered . . . . As these notes are prepared, on the way are new, large stocks from Athearn. Check with your nearest stockist of 'Dockyard lines. Covering Price List, 50c. Posted, 20c extra . . . . From United, stocks of the H0n3 Uintah 2-6-6-2 Tank Mallet are scheduled to arrive before Christmas '78 . . . . Further stocks of Wrenn 00 locomotives and rolling stock arrived in early September. For big savings, see our Wrenn Price List, supplied with colour Catalogue @ $1.35. Posted, 35c extra . . . . As these notes are prepared, modern Duwag 6-axle Tramcars, in H0 scale, are due to arrive from Roco. Stocks will be in three different liveries: KVB-Cologne, beige/light green; Karlsruhe, red/yellow and Alptalbahn, green/yellow . . . . To make way for new deliveries, some months ago we offered a limited range of H0 brass locomotives at specially discounted prices. Some remain and we have recently added a few additional type. As of 20-9-78 the range comprises: United 4-6-2 MoPac 'P-73' Loco. & Tender (was $174.50) $138.00, L. & A. 4-6-0 Loco. & Tender (was $151.75) $119.00, B. & M. 2-6-0 'B-15' Loco. & Tender (was $135.50) $107.00, 2-6-2 Rayonier Loco. & Tender (was $150.00) $119.00, S.P. 4-4-2 'A-3' Loco. & Tender (was $119.20) $95.00; Westside U.P. 4-4-2 Loco. & Tender (was $157.50) $120.00; Custom Brass A.T. & S.F. 4-4-2 '1480' Loco. & Tender (was $208.85) $149.50; Hallmark Models A.T. & S.F. 2-8-0 '2507' Loco. & Tender (was $222.75) $159.50; Gem Models N.Y.C. 4-6-0 'F12c' Loco. & Tender (was $184.75) $135.00, St. Paul & Pacific 4-4-0 "Wm. Crooks" (was $114.45) $86.00, P.R.R. 0-4-0 'A5s' Switcher & Tender (was $154.70) $111.00; 'Dockyard N.S.W.G.R. '79' Class Diesel Shunter (was $107.50) $77.00 and Westside H0n3 Rio Grande 2-8-2 'K-27' Loco. & Tender (was $197.75) $170.00.

SOLE AGENT & IMPORTER

THE MODEL DOCKYARD PTY. LTD.

216-218 SWANSTON ST. MELBOURNE. PHONE: 663 3505

MODEL RAILWAYS
IN THE
SYDNEY
EASTERN SUBURBS

Range Includes:–
PREISER
AMRI Accessories,
ATLAS
HORNBY
LIMA
JOUEFF
LIFE-LIKE
ROCO track
BRAWA
MEHANOTEHNIKA
KIBRI
VAU-PE
PO LA
HUMBROL
H & M
HEKI
ROCO locomotives.

HOOPERS TOYS

474 BUNNERONG ROAD
MATRAVILLE, NSW.
2036. Ph. (02) 661 6615

THE
BELL St. SIGNAL BOX.

129 BELL St. COBURG 3058

(03) 354 8519

R.T.M. TRANSFERS
LINING TAPE 1/64" to 1/8"
MEHANOTEHNICA LOCOS, STEAM and DIESEL
(including Alco 628 Hamersley Iron and Mt Newman diesels)

ATHEARN, LIMA, JOUEF, ROUNDHOUSE, KADEE, HELJAN, ATLAS LOCOS 'HO' & 'N' Gauge, SUYDAM KITS, CAMPBELL SCALE MODELS, CLASSIC MINIATURE KITS, MUIR MODELS 'HO' & 'N', POLA KITS, RIVAROSSI 'HO' & 'N', KADEE 'N' gauge ROLLING STOCK, PECO 'HO' & 'N', SUPERQUICK KITS 'HO', SILVER STREAK KITS, BUILDER PLUS KITS 'HO', ATLAS ROLLING STOCK 'N', AMT & ERTEL TRUCK & TRAILER KITS.

MAIL ORDER WELCOME

B1 bankcard welcome here

SANS SOUCI
SPORTS AND HOBBIES
SPECIALISING IN HO/OO SCALES

LOCOS & ROLLING STOCK: Rivarossi ● Roundhouse ● Mehano ● Lima ● Prototype ● Friedmont ● Ratio ● Bachmann ● Atlas ● Airfix ● Model Power

TRACK & POINTS: PECO Insulfrog, Electrofrog, Fine Scale ● SHINOHARA double slips, crossovers, 3 way and curved

SCRATCHBUILDING & GENERAL ITEMS: Sentinel, Protype & Cav'ndish fittings. Romford wheels, axels, crankpins & gearsets. BA screws, nuts, taps & drills. Styrene sheet. ECM & MW motors. AMRI accessories. Mn'J decals. Floquil & Humbrol paint. K&S brass. PMH bogies. Cavalcade wheels. Badger air brushes. Kalmbach books. Merten figures. Flock, lichen, cork. Kadee . . .

ELECTRICAL: Locomotion Mk3 throttle, Twinette control, CD point power, etc. Tempest Autopulse throttle. H&M transformers & point motors

BUILDING KITS: Heljan ● Kibri ● Pola ● Lifelike ● Superquick ● Builder Plus ● Revell ● Merit ● Peco Lineside

OPEN UNTIL 5.00 pm SATURDAYS

Trading hours: Tuesday to Friday 9.00 am-5.30 pm (until 8 Thurs)
Saturday 8.30 am-5.00 pm
Closed Sunday & Monday

**504 ROCKY POINT ROAD,
SANS SOUCI, NSW 2219
Phone (02) 529 9809**

Full steam ahead for Fleischmann from Bill Webb

FLEISCHMANN HO

4000 Black Anna $27.40
4028 Rack Loco 67.90
4029 0-6-0 Tank 59.90
4145, 4146 0-8-0 ..... each 78.40
4170 4-6-2 Pacific 98.00
4175, 4177, 4178 2-10-0... each 105.00
4200, 4201 Diesel 27.70
4235 Red Stag Diesel 71.85
4246, 4247 British Warship. each 69.80
4272, 4273 Metal Body Diesel each 81.65
4305 Climbing Electric 44.75
4369 Old Time Electric 99.65
4375 DB TEE Co-Co Express 84.90
4430 Railcar Set 96.00

NEW '78 HO ITEMS:

4111 0-4-0 Black Betty $38.20
4203 Industrial Diesel 29.25
5019 Crane Wagon, Operates.. 11.00
5065, 5067 DR Coach.... each 12.95
5475 EVA Tank Wagon 13.60
6052 Electric Turntable..... 120.00
6053 Turntable Extension Set .. 6.40
6475 HO Roundhouse..... 35.90

5051, 5052 DR Coaches.... each 9.70
5092, 5093 6-wheel Coaches each 13.70
5120 Silver Fish, Lights 25.00
5121, 5122 Silver Fish ..... each 15.70
5146, 5147, 5148 British Coach each 16.20
5160, 5162, 5163, 5169 TEE Set of 4 71.25
5190, 5191, 5192 DB Blue/Cream Set 48.90
5203 Open Wagon with Pit Props . 6.50
5233 Container Wagon, Removeable with Opening Doors 13.70

FULL RANGE TRACK AND POINTS IN STOCK

Track plan books and stencils for HO & N stocked.

FLEISCHMANN — N.

7000 0-4-0 Tank $31.70
7030, 7031 2-6-0 Tank ..... each 48.70
7170 DB Pacific 4-6-2 ..... 75.15
7175, 7177, 7178 2-10-0.... each 81.65
7218 Works Diesel 30.60
7306, 7307 Electric Rack ... each 53.60
7360 SNCF Bo-Bo Electric 63.00

NEW '78 N ITEMS

7368 Swedish Jack-Shaft Elect. $68.60
8170/72 Coaches for 7368 each 11.65
7434 Rail Car Set Blue/Cream . 76.80
7436 New Centre Coach 16.35
8065, 8067 DR 3rd Class Coach each 8.35
7969 Track Cleaning Loco 51.95
8061, 8062 DB Coaches, Green each 7.30
8092, 8093 Old Time 6-wheeled each 9.95
8100 Baggage, Bogie, Green 11.65
8110, 8111 DB Express Coaches each 11.65
8120 Silver Fish with H/lights .. 20.20
8121, 8122 Silver Fish ..... each 11.65
8160, 8162, 8163, 8169 TEE SET of 4 59.00

8500 Dump Car — Operates..... 3.25
9481 Unloader for Dump Car 8500 . 1.60
8200 Low-sided Wagon..... 4.45
8282 High Sided Wagon, Bogie... 7.70
8285 Car Transporter, 8 Cars 14.40
8301 DB Guards Van 10.60
8401 4-wheel Shell Tanker 7.00
8520 Operating Hopper Wagon, Bogies 9.30
9482 Unloader for Hopper Wagon 8520 ..... 8.80
9150 Manual Turntable 20.55
9200 Signal with Train Control... 18.80
9499 Level Crossing 3.15
COMPLETE RANGE OF TRACK AND POINTS IN STOCK

MARKLIN

Make tracks to Bill for Marklin. We stock a full range of M (metal) and K (plastic) track and a good range of locos and rolling stock from this manufacturer. We can also offer excellent spare parts and repair service. Send $1.50 for colour catalogue and price list.

HAG

Hag Swiss masterpiece Locos and coaches. Send a stamped addressed envelope & 70c catalogue and price list.

Please note: Prices may change prior to publication due to foreign exchange values.

MARKLIN Christmas Special
Starter Set **$29.90** No. 2924 plus post & pack $3 (Loco, 2 coaches, track & fully approved controller.) Extension Set for 2924 **$28.00**

ALSO ON SPECIAL:
"Marklin" 5202 Electric Point pair $29.00
7072 Point Switch-4 4.95 each

HO . . . 4016 Mixed traffic loco of DB Class. Superb detail, livery and lettering. **$54.80**

BILL WEBB

$2

SEUTHE

SMOKE GENERATORS
Send S.A.E. 25c for brochure of units to suit most Locos & Houses etc
Priced at $7.30

AND NOW FOR MARKLIN MODELLERS . . .
The proven, fully solid state LOCO-MOTION CONTROLLER is available for MARKLIN 3 RAIL SYSTEMS. This unit has full inertia, Brake and Shunt facilities. Also separate switch for direction and 24 volt reverse. Available ONLY from BILL WEBB for $56 post free anywhere in Australia.
Write with S.A.E. 25c for details

HAMO
8346 Green 2-10-0 Metal Body **$146.00**
8347 Black 2-10-0 Metal Body **146.00**
Full range of 2 rail DC locos and Electromagnetic crane in stock.

CATALOGUES Post Paid

Arnold	$2.00	Marklin 3 Rail	1.50
HAG	.70	Peco HO	1.50
Fleischmann	$2.00	Peco N	1.50
Hamo	.25	Vollmer	1.25
Kibri	1.40	Locomotion	.25

Send S.A.E. 25c for colour brochure and price list.

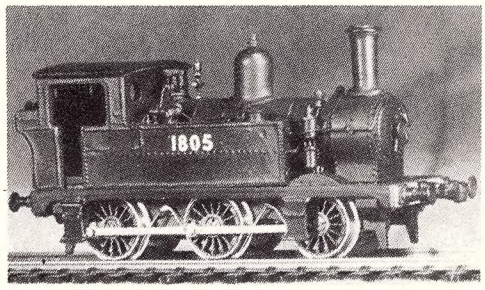
AUSTRALIA WIDE MAIL ORDER
Postage information.
Orders up to $15.00 add 80 cents.
Orders over $15.00 POST FREE.
No Order too small.
If you require goods by Airmail, Air freight or C.O.D. please add extra cost.
Remember . . . No matter where you live our LAY-BY Service is available on 10% deposit — send S.A.E. for full details.

BILL WEBB MAIL ORDER
BOX 68, P.O. FIGTREE 2525
PHONE (042) 29 5824
Showroom — 21 Meares Avenue, Mangerton.
Inspection by appointment only.
Please debit my Bankcard account number

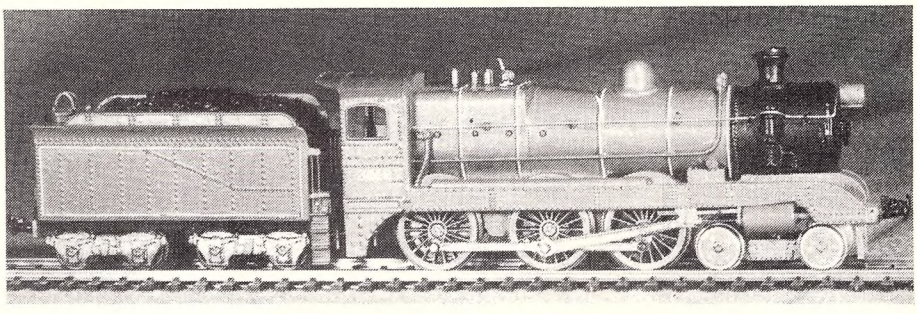
Signature .....
Expiry Date .....

Please forward
☐ PRICE LISTS ☐ HO or N Gauge ☐
☐ DESCRIPTION ☐ CATALOGUE
I enclose $ postal note/cheque
NAME _____
ADDRESS _____
_____ P/Code _____

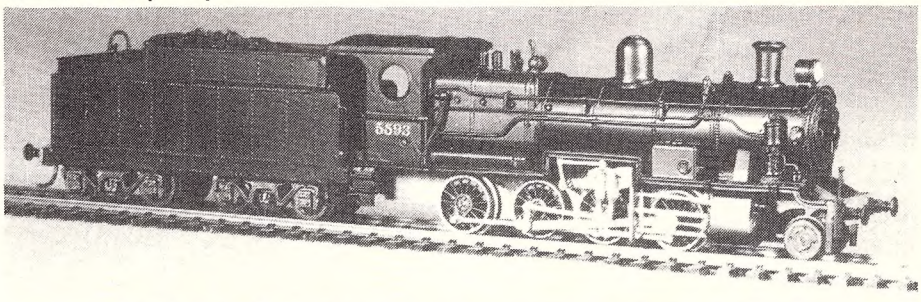
FSM



N.S.W.G.R. Z18 Tank Locomotive.
HO Scale Kit $65.00 + 5% p. & p.



N.S.W.G.R. C35 Locomotive & Tender Kit.
HO Scale. $95.00 + 5% p.& p.



N.S.W.G.R. D55 Standard Goods Locomotive and Turret Tender Kit.
HO Scale. $110.00 + 5% p. & p. Available September 1978

We are now supplying in our Kits many small parts with Brass Lost Wax Castings. Also, Zinc Alloy is now in use for all Motion Parts in all Kits, which are subject to stress and bearing friction and should outlast the life of the model.

As well as all components being available separately, we can now offer 14 BA screws either Countersunk or Cheeshead in Brass or Steel in packets of 10 at 50c per packet. We hope in the near future to supply Taps as well.

The Redesigned Z25 with motor in the Boiler should be available in December, as the Standard or Extended Smokebox versions. Soon after this the Z24 will also be ready. The price for the Z25 either version and the Z24 will be $75.00 plus 5% p & p.

FINECRAFT SCALE MODELS PTY LTD (Established 1947)
P.O. Box 169. FORESTVILLE. N.S.W. 2087

SEND S.S.A.E. FOR OUR PRICE LIST
23 Tottenham St., Balgowlah. 2093

Aspect Models

9 McGregor Street
CANTERBURY Vic 3126
Australia

CATALOGUES

Merker & Fischer H0 gauge parts catalogues and N gauge loco kits catalogues are expected late in January. The H0 gauge loco kits catalogue is out of print, further stocks are expected about March next year.

RAILCRAFT

Flex-trak, yard lengths with plastic sleepers, and very fine rail fastenings. Sleepers are slightly irregular for more realistic appearance:

H0 code 55, six lengths	$16.70
H0n3 code 55, six lengths	16.70
H0n2½ code 55, six lengths	16.70
H0n3 code 40, six lengths	17.60
Weathered nickel-silver rail, bundels of 33 x 3 ft lengths:	
Code 40	21.00
Code 55	23.00
Code 70	26.20
Code 100	23.50
H0n3 sleepers, per 1000	4.30
H0n3 sleepers, points, (500)	4.30
H0 sleepers, per 1000	4.95
H0 sleepers, points, (500)	4.95
N gauge sleepers, per 1000	3.50
N gauge sleepers, points, (500)	3.50
Rail joiners, code 40 (50)	2.00
Rail joiners, code 55 (50)	2.20
Rail joiners, code 70 (50)	1.98
Rail joiners, code 100 (48)	1.85
H0n3 track gauge, code 40	2.05
H0n3 track gauge, code 55/70	2.05
H0 track gauge, code 70	2.05
H0 track gauge, code 100	2.05
Pliobond glue, per tube	1.80
Crimping tool (for rail-joiners)	4.95

A leaflet on hand-laid track construction is available on request. Railcraft rail is chemically treated to give an electrically conductive natural weathered appearance.

MAGAZINES AND BOOKS

Narrow Gauge and Shortline Gazette (American) $2.25 each; annual subscription $15.95
1977 backnumbers $1.50 each
M & F Journal (German) $2.60 each; annual subscription $17.95; 1977 backnumbers $2.60 each.

GERMAN LOCOMOTIVE POCKET-BOOKS

Diesel locos (214 pages)	$5.95
Steam locos (270 pages)	5.95
Electric locos (222 pages)	5.95
Railcars (222 pages)	5.95
Narrow-gauge steam (222 pages)	5.95
Rolling stock, signals	5.95
Trackwork, stations	5.95
German Locomotive Builders (New)	5.95

LILIPUT H0 locomotives

2-10-2 tender loco (BR 45) black or grey	$196.00
4-6-4 tender loco (BR 05) black or grey	196.00
4-6-4 (BR 05) streamlined, red	135.00
Swiss 4-6-0 loco (3 rail, AC suit Maerklin)	79.00

MERKER & FISCHER Superb quality German H0 scale kits

Kittel steam railcar	89.00
Wismar H0 petrol railcar	75.00
Prussian T3 0-6-0T (Allen valve gear)	77.00
2-12-0 tender loco (BR 59)	395.00
0-8-8-0 Bavarian Mallet (BR 96)	395.00
4-6-0 Prussian S10 (BR 17)	325.00
ET 194 electric freight railcar	59.00
H0n2½ 0-6-0T (BR 99-450)	118.00

BEMO German H0n2½ (9mm gauge)

V51 Bo Bo diesel loco	69.95
Six-wheel open wagon	7.70
Six-wheel van	8.30
Buffer van	11.40
Transporter bogies (pair)	4.90
Luggage van	9.60
Passenger car (2 types)	10.30
8.6 mm wheels on axles	.61
5.2 mm wheels on axles	.52
Link & pin couplings, pair	.64
Transporter bogie ramp	5.75

SCALE STRUCTURES American H0 kits

Ford Inspection car, H0/H0n3	7.90
Kleiber stake body truck, open cab	7.90
Kleiber stake body truck closed cab	7.90
Kleiber tank truck, closed cab	7.90
Kleiber dump truck, closed cab	7.90
Kleiber semi-trailer van, open	11.90
Kleiber flatbed, open cab	12.90
Autocar delivery truck	8.90
Autocar delivery truck	8.90

DURANGO PRESS American H0 kits

H0 handcar	2.90
Ashpit with crane	7.90
Coal loader	4.90
Dutchman mining supply	11.90
H0 rotary snow plough	59.95

RIO GRANDE MODELS H0 kits

H0n3 Westside tank car	19.00
H0n3 Rio Grande Flanger	19.00
Marion steam shovel, suitable for H0 or H0n3 trucks	71.00

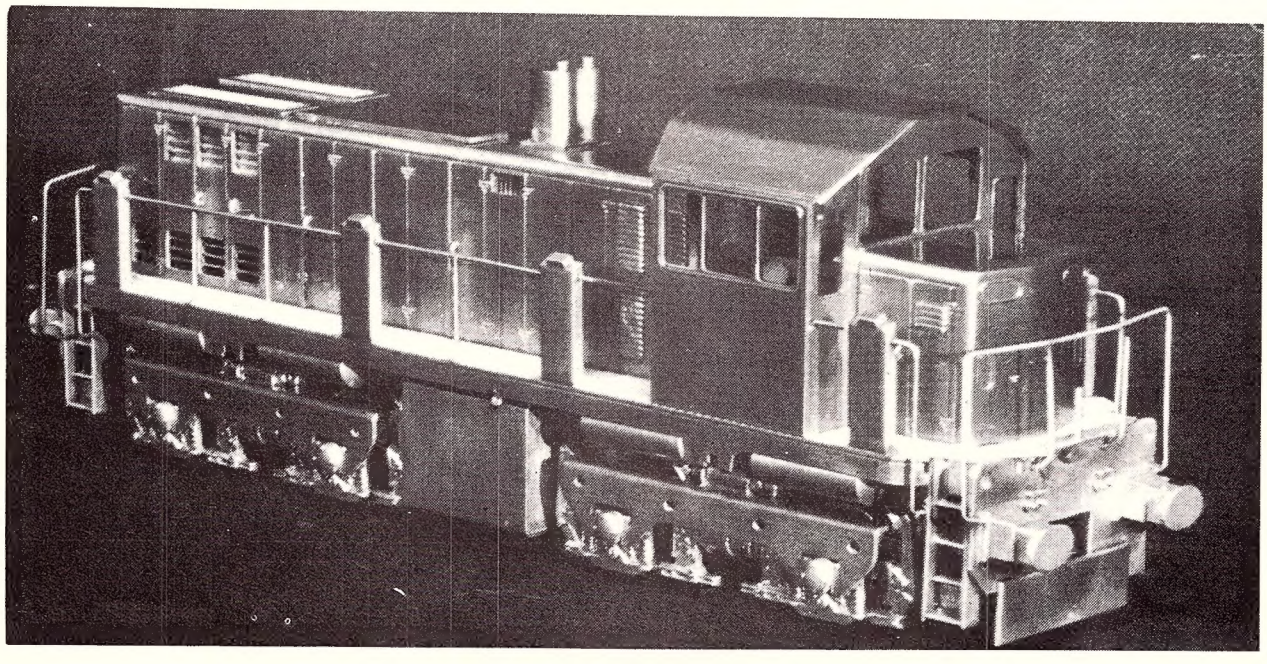
POSTAGE

Under $10, add 80c; $10 to $50 add $1.50; over $50 add $2.00.

Bergs Brass Models

P.O. Box 527
Parramatta, 2150
Ph. (02) 635 8618

WE ARE PLEASED TO ANNOUNCE, THE ARRIVAL OF . . . the



NSWPTC '73' class diesel — to 'HO' scale
Handcrafted in brass, this fine model is powered by a precision made can type motor, driving all wheels — Possibly our best model to date.
AVAILABLE RTR UNPAINTED $195.00

'NEW' FOR THOSE MODELLING NSW in 'N' SCALE —

'FRIEDMONT'

'42' class diesel body kit, moulded one piece, in resin, may be powered by either: LifeLike RSD-15 or SD45 drive mechanisms. Body — ready to paint — $7.50; drive — $19.95.

'MRC Scale Models'
Resin cast wagons: Types include — MHG guards van, TRC refrigerator car, BCH, BWH, BRH hoppers — all one price $3.75 each.

All Current Run FRIEDMONT & MRC 'HO' scale NSW kits in stock — lists available.

Berg's Hobbies Pty. Ltd.

223 Church St., Parramatta,
2150.

Bankcard &
American Express
Welcomed.

(Advertisement)

The Goods Yard

by John Thomas

To-day freight plays a most important part in providing revenue for the railways of the world. In many countries, Australia included, passenger services have shown a steady decline over the years and lines which a short time ago carried a viable passenger trade are now restricted to goods traffic only.

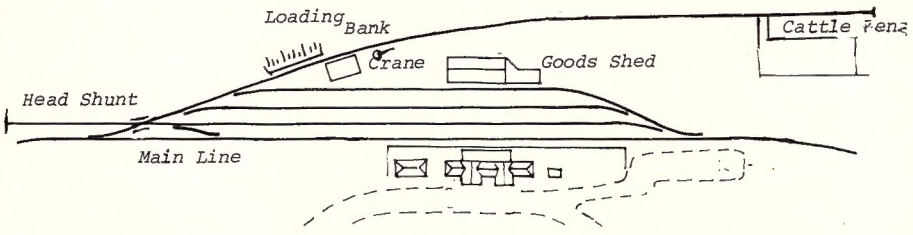
Strangely in the early days of railways the companies were not very interested in the freight traffic. It did not take them very long, however, to realise that they were missing out on a profitable source of revenue.

In England where the steam railway was invented, three to five kilometres was regarded as the ideal distance for delivery from a central point by horse and cart. As the railways spread their network throughout the countryside, towns strove to be within an eight kilometre or so radius from the nearest railway station. Towns 16 kilometres or more from the railway were regarded as being almost at the end of nowhere. For this reason when much of the freight carried was of the "brown parcel type" and bulk loads could not exceed one or two tons almost every station had its own goods yard.

Australian railways owe much to the early development in England. Australia does not have the same density of railways or population as the British Isles but that did not stop the early railway engineers from putting in a goods yard at nearly every station they built. Many of these early goods yards have disappeared, others have fallen into disuse whilst a few have remained as central distribution points for the surrounding districts. The trend is towards larger centralised yards catering for a large surrounding district.

Many railway branch lines have been closed to regular traffic and operate on an 'as needed' basis. Some of these lines are worked seasonally, e.g. during the wheat harvest, others work on the basis that a train will go down the line whenever there are sufficient truck loads available to justify the trip. Small consignments on these lines are handled by road transport from a central goods yard.

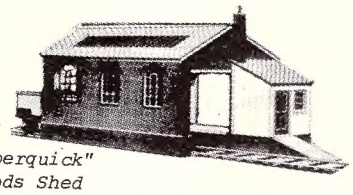
A typical goods yard of the era when railways were at their peak would have had a loop into which the goods train could be pulled leaving the main line clear while the yard was worked. On one or more sidings there would be a goods shed, a loading bank for wheeled loads, a crane for heavy loads and races and yards for the loading and unloading of livestock. In larger yards there would also be a water crane so that steam locos could take on water whilst in the yard area. The importance of any one type of traffic could be judged by the relative size of the facilities provided to handle it. For example a large movement of livestock would be indicated by several large holding pens and several loading races.



A possible layout for a busy goods yard.

Larger yards would also have siding space to hold wagons which are waiting to be loaded or unloaded and those ready to be fed back into the system.

The architecture of the goods shed on Australian railways shows many variations. Sheds range from the highly ornate in brick or stone down to the strictly utilitarian with galvanised iron exterior cladding. Many Australian goods sheds can trace their architectural style back to the English railway company at which the early engineer served his time and learned his trade.



"Superquick" Goods Shed No. A-7

The importance of goods traffic to the one foot to the foot scale railways cannot be underestimated. For this reason if for no other goods traffic must be an important part of model railway layout operation

The manufacturers of model railway equipment have provided a vast array of different types of goods vehicles and locomotives to pull them and the accessory manufacturers have made a large number of suitable buildings and other accessories such as loads, people to work in the goods yard and so on.

A goods shed which has always been a favorite of mine has been the one put out by 'Superquick' for HO/OO. 'Superquick' kits are printed in full colour on a quality card. The parts are die cut and easily removed from the printed sheet. If a little care is taken with assembly and the card edges are coloured with water colour, the finished structure is most realistic in appearance. The goods shed makes up a building 127 x 102 x 95mm. Two or more kits can be used to make up a larger shed. As with all 'Superquick' kits the goods shed can be 'Aussified' by covering the roof with corrugated iron. Kit No. A-7, Goods Shed has a recommended retail price of $2.25. 'The Real McCoy' No. 8511 scale C.G.I. in sheets 77mm x 24mm is available at 75c for 12 sheets.

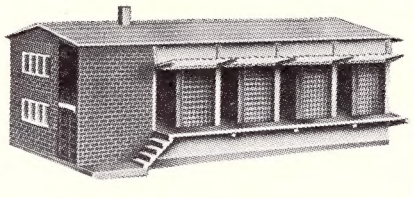
Whilst still with HO/OO there are several items in the Vollmer range of plastic kits which enhance the appearance of any layout.

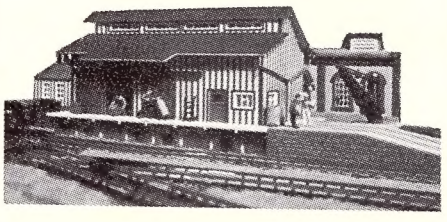
Kit No. 5604 is described as a warehouse and could be used as such at any place on the layout. It also can be used a modern goods shed. The kit makes up to be 160 x 100 x 65mm and is priced at $7.75.

Kit No. 5624 is an overhead container crane of the type used to load and unload containers from road to rail and vice versa. The crane spans one or two tracks and the road. Dimensions are 255mm long, 120mm wide and 165mm high. The price is $11.50

Kit No. 5701 is an older style of goods shed erected on its own platform with a small crane for heavier loads. Whilst being rather Continental in appearence this crane would not be all that much out of place on an American or Australian prototype layout. Price is $11.25

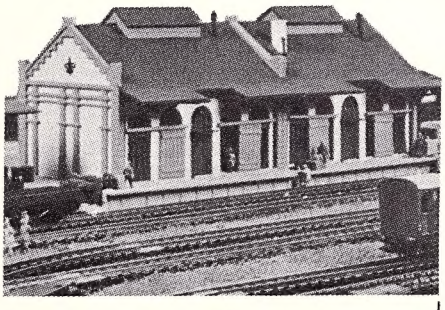
No. 5706 is one for the large modern image goods yard. This shed with its 'universal' modern style architecture will fit in anywhere. At 282mm long, 105mm wide and 105mm high this shed is $11.95.





Vollmer kit No. 5604 (above) and kit No. 5701 (below) are models of a modern and an older style of goods shed.

The Goods Yard (Continued)



Kit No. 5715 (No. 7540 - N gauge) is a large goods shed of the older style which can be used in a wide variety of settings, old or new.

This good shed No. 5715 is the largest in the Vollmer range and one which can take its place in any large goods yard. Architecurally the style dates from the earlier days of railways. The shed is 380mm long, 130mm wide and 135mm high. The price is $14.95.

Loading platform kit No. 5716 is complimentary to kit No. 5715 although there is no reason why this platform cannot be used wherever a platform of this type is required. At 820mm long by 48mm wide and 80mm high, the platform is more suited to the larger layout. This kit is $9.95.

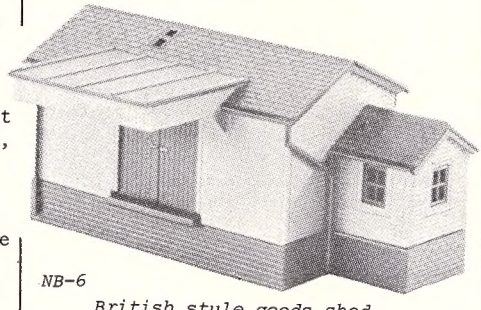
Vollmer has not overlooked the needs of the N gauge modeller who is looking for a large older style goods shed. Goods shed, kit No. 7540 is an N gauge version of the same shed as the HO kit No. 5715. In N the shed measures 235mm long, 95mm wide and 80mm high and has a price of $11.75 The loading platform kit No. 7541 is the smaller version of the HO No. 5716 and measures 520mm long, 35mm wide and 48mm high. The price is $6.75.

N gaugers have the choice of two overhead gantry type cranes in the Vollmer range. The first is Kit No. 7901 which has an open steel work type construction. The gantry is 120mm long and the overall height of the crane is 75mm. The crane is priced at $5.75 as is crane No. 7905. Crane No. 7905 is made up of box girder sections. It covers a wider span than the other crane and is 165mm long, 63mm wide and 80mm high.

An N gauger looking for a British style goods shed will find that the Peco shed No. NB-6 could meet his requirements. Priced at $2.50 this shed is of weatherboard construction set on a brick base. Two or three of these sheds can be used together for larger sheds and with modifications a whole range of other buildings can be made.

A new additon to the N gauge range is the good shed from 'SN'. This a run through style shed with an external road loading platform. This shed which needs painting sells for $2.75.

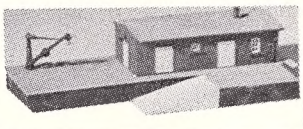
The well known N gauge maker 'Arnold Rapido' also has a goods shed in the range. Mounted on its own platform and ramp this shed also has a crane and is priced at $7.50.



NB-6

British style goods shed from Peco. (above)

6440 N gauge goods shed with platform and crane from Arnold.



Moving up the scale Arnold also have a larger freight station No. 6432 which has two covered platforms, entry ramp and a loading ramp. This kit which costs $18.95 may be assembled in several different ways. Also included in this kit are boxes, crates and barrels, a lift truck and a telephone box.

A goods yard is not a goods yard unless there are different kinds of freight to be moved. The following are some of the itmes available:

Merten

2369 70	casks and barrels, 7 types	2.50
2370 90	crates & boxes, 6 types	2.50

Vollmer

6060	Assorted crates and barrels	3.50

Scale Line

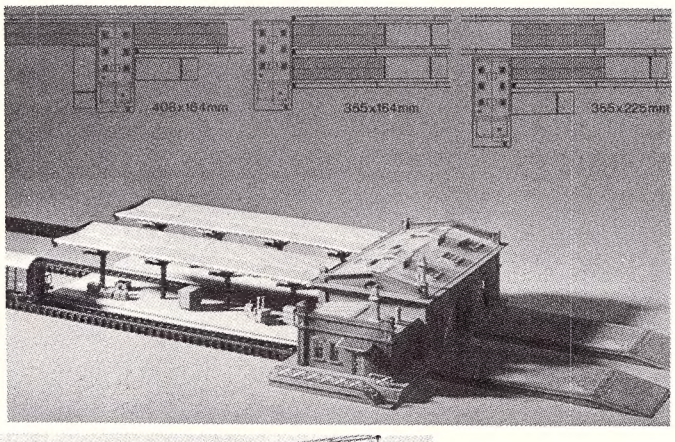
1201	44 Gallon Drums	(10)	1.50
1202	16 Gallon Kegs	(10)	1.50
1205	Packing cases	(10)	1.50
1301	Milk cans	(15)	1.50

Whilst the abovementioned items are nominally for HO/OO gauge they are also suited for use with N gauge.

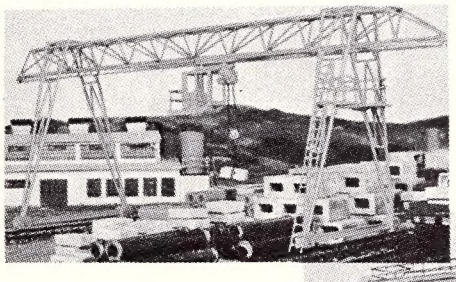
The people needed to work in the goods yard can be selected from the 'Merten' range of HO/OO and N gauge figures. HO/OO scale figures are $2.50 per box whilst N gauge are $2.25 per box. N gauge sets have the same number as HO except that it is preceded by N.

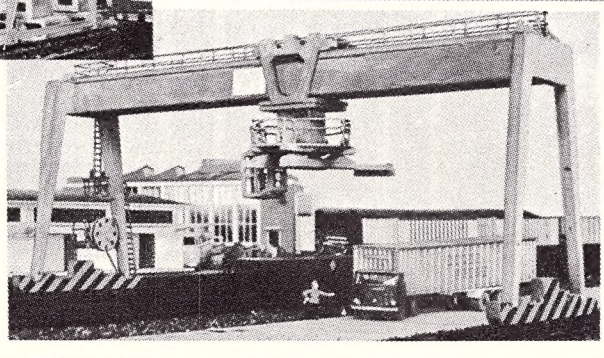
870	6	workmen with picks, shovels etc.
876	6	gangers with sleepers etc.
2234	6	transport workers with crates.
2240	6	different transport workers.
2280	6	train crew, shunters, greasers, etc.
2343	6	tradesmen, carpenters etc.

These are but a few of the many different figures available from the full 'Merten' range.



Arnold Rapido freight station No. 6432 with some possible arrangments shown.





Vollmer crane kits No. 7901 (above) and 7905 (right) would make interesting additions to any large N gauge layout.

Kit No. 5624 is the HO/OO version of kit No. 7905.

The goods mentioned above are available from good hobby shops everywhere and are supplied to the retail trade by Australian Model Craft Co., of 577 Dean Street, Albury, N.S.W. 2640 (P.O. Box 118).

All prices shown above are recommended prices only and there is no obligation for dealers to comply with the recommendation.

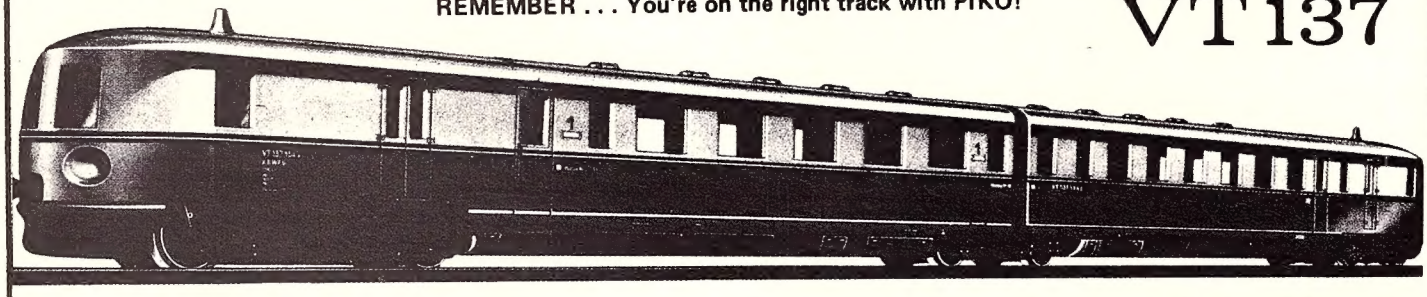
N
1:160 9mm

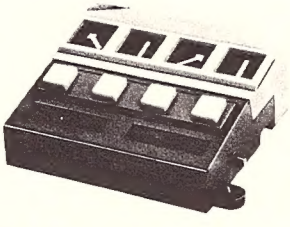
PIKO
MODELLBAHN

HO
1:87 16,5mm

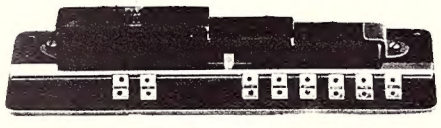
REMEMBER . . . You're on the right track with PIKO!

VT 137



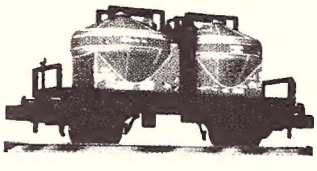


399/51 switch block with acknowledgement



5/051 PIKO switch relay — double coil drive with isolating section and reply contacts.

190/EM 14/4 Model of a two-piece railcar, length: 450 mm, central bogie driven, front ligths "white/red" changing with direction of running, interior light fittings, excellent bend movement.



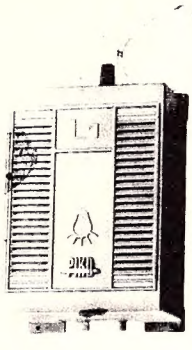
5/4407 Model of the DR cement truck.

The model railway running will be still more realistic — PIKO's Lux Constant keeps the lights burning in your trains!

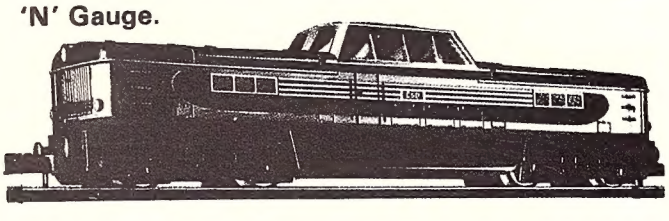
5/7000 Light-fitting generator L 1 „Lux Constant" enables:
Train lighting independent of the operating voltage! Suitable for model railways of all gauges, also for car-racing tracks. Input voltage: 16 V. A.C., current input 1,5 A with maximum charge, output voltage: approx. 15 V. — up to 30 mini-lamps of 16 V. and 0,05 A can be connected!

5/7001 Choke-coil L 11 — to be included into the operating current supply line in order to avoid a short circuit of the lighting-voltage through the transformer.

5/7002 Coupling condenser for transmitting the lighting-voltage over all the isolating points.

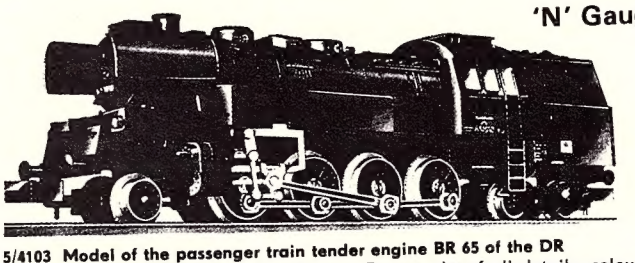


'N' Gauge.



5/4106 Model of the Diesel engine T 449 of CSD
Axle arrangement B'B', length: 110 mms. Exact make of all details, colours and inscriptions. Both bogies are driven. Great tractive power by help of lead ballast.

'N' Gauge.



5/4103 Model of the passenger train tender engine BR 65 of the DR
Axle arrangement 1'D2', length: 110 mms. Exact make of all details, colours and inscriptions. All pairs of wheels are driven. Great tractive power by help of lead ballast.

AVAILABLE AT THE FOLLOWING STOCKISTS:—

QUEENSLAND: Valley Toyworld — Traintasia, Miami Beach — Cannon Hill Toyworld — Caloundra Toyworld.
SOUTH AUST.: Bridglands Hobbies — Kids Korner & Toyworld — Model Centre — H. & E.M. Simon & Son — Tilesia Pty Ltd.
VICTORIA: Ballarat Toys & Hobbies — Gunners P/L, Camperdown — Geelong Toys & Hobbies — Carsons Toyworld, Morwell — V.R. & W.A. Packenahm, Chelsea Hts — Tinyland, Malvern — Traralgon Toyworld.
TASMANIA: The Model Shop, Hobart.
N.S.W.: Alce's Hobby Shop, Merrylands — Casula Hobbies — Green Hills Camera Centre, East Maitland — Keith Hudsons Modellers World — Kid's Things, Fairy Meadow — Railmail, P.O. Box 152, Wellington — Searle's, Chatswood — Toyman Imports, Yennora — Hoopers Toys, Matraville — Model railway Centre, Miranda — Micro Models, Hornsby — Mansfield Hobbies, Waitara.

Distributed in Australia by:

B.H. WINN PTY. LTD.

Trade and general enquiries only.

104-108 MOUNT STREET, NORTH SYDNEY. 2010. Phone (02) 929 7333

EXPORTER: DEMUSA D.D.R. — 108 BERLIN, CHARLOTTENSTRASSI. 46.

VICTORIA
B.H. WINN PTY. LTD.
79 Market Street
South Melb. 3205
Phone. 699 3644

STH. AUST.
E.B. & M.S. MACKENZIE,
155 Pirie Street,
Adelaide. 5000
Phone: 223 6279

WEST. AUST.
Burrow Trading Co.,
975 Hay Street,
Perth.
Phone: 321 2422

QUEENSLAND
J & M Miller,
Andrew House,
Cnr. Wickhan Tce. & Wharf St.,
Brisbane.
Phone: 221 3854

A.M.R.M.

November/December 1978
Issue 93. Vol. 8 No. 12
AT ISSN 0045-009X

The official Journal of SCMRA in Australia. Incorporating the Yardmaster, bulletin of The Sydney Model Railway Society.

Published bi-monthly by **S.C.R. Publications** of P.O. Box 235, Matraville, NSW 2036 for the Southern Cross Model Railway Association. All rights reserved and all editorial matter copyright. Registered for posting as a publication — Category B. Printed by Publicity Press Ltd, of 29-31 Meagher St, Chippendale, NSW 2008. All compilation, editorial and distribution work is carried out by voluntary labour on a non profit basis.

Editor . . . . . **Allan Brown**
Managing Editor. . . . . **Bob Gallagher**
Associate Editor. . . . . **Bill Slarks**
Editor (Reviews) . . . . . **Graham Ahern**
Assistant Editors (NSW) . . **Alan Templeman**
Stuart Liversey, Paul Rogers
Assistant Editors (Vic.). . . . **Ian Weickhardt**
Peter Gibbs
Assistant Editor (S.A.) . . . . . **Phil Curnow**
Assistant Editor (Qld) . . . . **Max Chaseling**
Staff Artist (Illustrations) . . . . **Ian Thorpe**
Photographer . . . . . **Graham Ball**
Research . . . . . **Bob Merchant . Phil Collins**
Assistants . . . . . **John Bevan**
Arthur Robinson, Bill Kerr,
Phil Jeffrey, Barry Eadie,
Peter Vincent, Ross Hurley
Draughtsmen . . . . . **Roger Johnson**
Dave Taylor, Ray Love, Ian Stevens,
Ron Wrigglesworth, Adrian Compton
David Wearne, Howard Armstrong
Tony Parnell, David Howarth
Back Issues Manager . . . . . **John Casey**
Subscription Manager. . . . . **Ted Cole**
Distribution Manager. . . . . **Trevor Moore**

DISTRIBUTION: Subscriptions, SCMRA and SMRS members; hobbyshops and Associations by SCR Publications; newsagencies and bookstalls by Gordon and Gotch (A'asia) Ltd.

ADVERTISING: Details available from S.C.R. Publications, P.O. Box 235, Matraville, NSW 2036. Phone (02) 661-4046 (evenings only).

CONTRIBUTIONS in the form of articles, photographs, club notes, hints, letters to the Editor, drawings or trade press releases are welcome for publication in this magazine. All items received will be acknowledged upon receipt. Please pack photographs between stout cardboard before posting. Indicate whether photographs are to be returned, and if trimming is forbidden.

SUBSCRIPTIONS: Rate (by mail); Australia $7.00 per year (6 issues); overseas $9.70 per year. A limit of one year. All monies payable to S.C.R. Publications at Matraville, NSW. Subscription starts with the first issue after receipt of money.

ADVERTISING DEADLINES: For all copy is as follows:-

January/February, 1979	15.12.78
March/April, 1979	16.2.79
May/June, 1979	20.4.79
July/August, 1979	22.6.79
September/October, 1979 ..	17.8.79
November/December, 1979	19.10.79
January/February, 1980	14.12.79

CONTENTS

TIME FOR A CUPPA	Kev Loughead	13
OPERATION	Stuart Liversey	14
TRANSISTOR THROTTLE	Les Paget	15
LINESIDE INDUSTRIES THAT AREN'T	Stuart Liversey	15
STEAM ERA — QUEENSLAND	Ian Cutter	16
N.S.W.P.T.C. 73 Class Diesel Hydraulic Locomotive	Phil Collins, Roger Johnson	18
USING YOUR HORSEBOX	Phil Curnow	23
TWENTY YEARS OF HO TRACKWORK	Alan Templeman	26
FURTHER THOUGHTS ON EARLY AUSTRALIAN RAILWAY MODELLING	"O"Idie	29
PROTOTYPE PLAN: N.S.W.R. 'ACM' Composite and Sleeping Coach	Paul Rogers, Howard Armstrong	30
PROTOTYPE PLAN: V.R. ELEPHANT WAGON	Ian Weickhardt, Peter Vincent, Ron Wrigglesworth	32
VICTORIAN RAILWAYS CIRCUS TRAINS	Ian Weickhardt	33
LAYING 'N' SCALE TRACK BED	Terry Burton	35
VICTORIAN RAILWAYS ENGINE No. 100	Frank Kelly	36
AMRM NEWS		37
CUSTOMISING A N.S.W.P.T.C. 44 CLASS	Graham Ball	38
PROTOTYPE PLAN: N.S.W.R. 'MCV' Bogie Box Van	Paul Rogers, Adrian Compton	39
MODELLING PROJECT: N.S.W.R. 'MCV' Bogie Box Van	Ron Cunningham	40
TERMINUS	Frank McMahon	42
MAILBAG		43
1978 SYDNEY MODEL RAILWAY EXHIBITION	Bob Gallagher	43
DUAL GAUGING TURNTABLES	Phil Morrow	44
REVIEWS		45
GOOD NEWS FOR V.R. MODELLERS	Ian Weickhardt	48
MODIFYING LIMA PASSENGER CARS	Jack Fotheringham	49

COMMENT

As discussed in previous issues of AMRM, mail order sales of Australian Prototype products and imported accessories is cheaper than if available through a retail outlet. But haven't these mail order houses heard of merchandising, impulse buying?

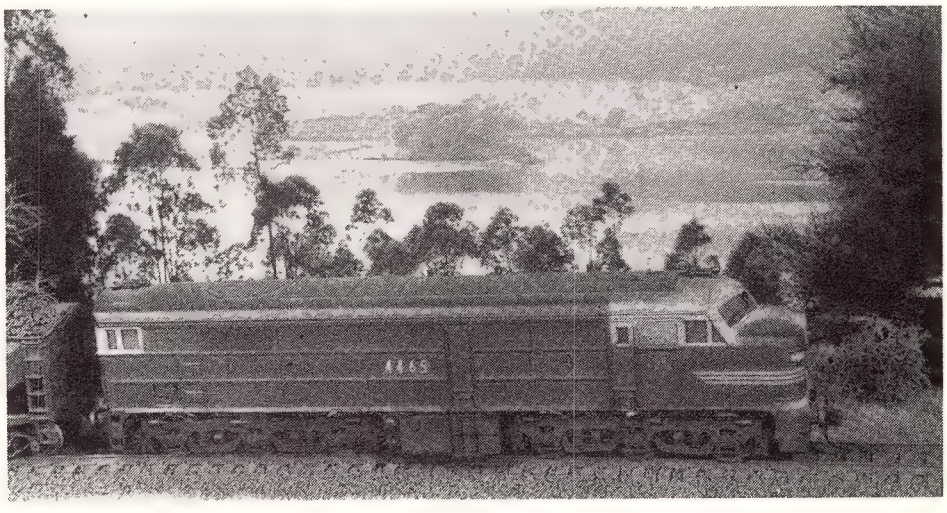
Mail order is fine for those in the know, who know where to go to or who get publications which carry advertisements for the mail order houses. But what of the untutored masses out there who may wander in and out of hobby shops, department stores and the like, searching hopelessly for something to spend their time and money on — only to end up in a few months time with a whole heap of clockwork British prototype that neither gladdens the eye or heats the blood.

If some of these Australian made products were sold in retail stores, attractively boxed, with ADEQUATE INSTRUCTIONS, and helped along by an enthusiastic retailer (who knew he was getting a cop out of it) then surely you must convert a significant percentage of first time buyers into the sensuous delights of Australian prototype. These new buyers would all be extra business on top of the regular "in the know" customers.

The advantages are that you immediately convert a newcomer to the hobby into buying Australian because he can relate better to engines, rolling stock and railway accessories which abound in his everyday life, and with continual display of the products on store shelves you are more likely to attract an impulse buyer who will then make a purchase he would not otherwise have done.

Having your products on display in a retail outlet is a second and constant form of advertising. Think about it.

Peter Gibbs



4465 hauls a heavy coal train through the lakeside area. Photo by Graham Ball.

ON THE COVER: The Victorian Railways' J class was nearing the end of its service when this photo was taken on Thursday, 26th November, 1970. This particular example, No. 550, has just returned from its Bendigo to Eaglehawk shunting trip, and is shown waiting in Bendigo yard. Photo: Jack Parker.

McBEE'S HOBBY CENTRE

"THE"

Model Railway — Mail Order Specialists

PHONE — (03) 478 0038

POSTAGE RATES.
Unless stated otherwise for orders
Under $15.00 add $1.00
$15.00 — $50.00 add $2.00
Over $50.00 — free.
In ALL cases for:-
Airmail add extra $3.00
Overseas add extra $3.00
Registered add extra $2.50.

WESTON H0 PAINTED FIGURES

12 Hereford Cattle	$5.15
Dog Scratching	.65
Dog Sleeping	.65
Collie Dog	.65
Flexible Freddy	$1.35
Naked Lady	$1.35
Lady's Clothes	.75
Old Man with Walking Stick	$1.75
Engineer waving	$1.60
Engineer sitting	$1.60
Fireman sitting	$1.60
Section Hand with Wheelbarrow	$2.15
Hand Water Pump (2)	$1.00
Street Sweeper with Cart	$2.65
Pigeons (6)	$1.35
Young Man Walking	$1.55
Telephone Linesman	$2.65
Mrs. Spumoni, Pistachio and the family wash	$5.85
Lady — 1890's	$1.55
Telegrapher — 1890's	$1.70
1914 Ford Truck — unpainted	$4.35
1914 Ford Roadster — unpainted	$4.20
Windmill — unpainted	$1.20
Rowboat with oars — unpainted	$1.00
12 Oil Drums — unpainted	$1.20

We are adding more items to our range of Westons each month — if what you want is not listed above please write, we may have it by the time your letter arrives, if not we will import it for you.

SS. LTD. H0 DETAIL ITEMS

2201 Push Broom (5)	$1.95
2206 Wrench (10)	$1.95
2213 Oil Can (6)	$1.95
2214 Oil Can small (10)	$1.95
2215 Pail — handle up (4)	$1.95
2216 Pail — handle down (5)	$1.95
2220 Tin Dipper (6)	$1.95
2221 Grease Pot (4)	$1.95
2222 Loco Seat (4)	$1.95
2229 Grain Sacks	$1.95
2231 Grain Sack open (4)	$1.95
2232 Grain Sack leaning (5)	$1.95
2238 Steel Shovel (4)	$1.95
2239 Shovel small (4)	$1.95
2240 Spade (4)	$1.95
2281 Luggage Barrow (2)	$1.95
2298 Lamps (6)	$1.95
2299 Acetylene Bottle (4)	$1.95
2300 Oxygen Bottle (4)	$1.95
2301 Tiny Tools set A (12)	$2.10
2302 Tiny Tools set B (12)	$2.10
2303 Tool Box (4)	$1.95
2304 Tyre Spanner (5)	$1.95
2305 Oil Bottle (12)	$1.95
2306 Tyre Pump (6)	$1.95
2307 Air Compressor (3)	$1.95
2308 Tyres (12)	$2.10
2310 Stack of Crates (2)	$1.95
2311 Welding Cart (1)	$1.95
2312 Welding Hose (3)	$1.95
2314 Trash Can	$1.95
2321 1920's Petrol Pump (1)	$2.10

All SS Ltd are unpainted metal castings.

ATHEARN H0

Athearn have announced a new kit, a Steam Era, 50 foot single door, steel box car. It will be produced in 12 lettering schemes being:- NYC, NP, PRR, Southern, SP, UP, and Santa Fe Super Chief, El Capitan, Grand Canyon, Chief, San Fran. Chief, Texas Chief. Delivery is expected in January 1979. We will accept reservations now.
Price $3.35

With the approach of the festive season we here at McBEES would like to thank all the modellers who have supported us through another year. Our thanks extend to the hard working, volunteer staff of AMRM who provide the means for spreading our message to our customers. Merry Christmas to one and all. We are looking forward to 1979 being an exciting year in Model Railways — we hope you are too. Peace!

WALTHERS H0 CATALOGUE

For one of the largest lists of detail parts, locos, cars, scenery etc., etc. We suggest you buy yourself a copy of this superb reference manual. We stock some of the lines shown in it — we will import ANY item in it. We now have approx. 75% of our Walthers orders AIR FREIGHTED to us — this means in many cases a delivery time of 3-5 weeks from date of order. Naturally we will import 0 or N gauge items also.

Walthers 1979 H0 Catalogue $5.00
Postage of this item is $1.50
(Expected delivery into our store is last week in December.)

SCRATCHBUILDING AIDS

NRMA Standards Gauge		$3.35
Plastikard Plain Sheet .010 thick	ea.	.35
Plastikard Plain Sheet .020" thick	ea.	.40
Plastikard Plain Sheet .040" thick	ea.	.80
Plastikard Plain Sheet .060" thick	ea.	$1.15
Plastikard Corrugated Sheet	ea.	.35
Plastruct Plastiweld (liquid)	bottle	$1.55
HOBSCO Goo (adhesive)	tube	$1.30
PLIOBOND 50ml		$1.15
PLIOBOND 100ml		$1.60
X-ACTO Precision Flat File	ea.	$1.40
or as a SPECIAL	3 for	$3.50
WALTHERS Screw Sticker for starting those "hard-to-hold" little screws		$1.95
WALTHERS Solva Set decal softener		$2.15
PAINT BRUSHES Very fine for lining etc.		
"0" Size	ea.	.78
"00" Size	ea.	.75
"000" Size	ea.	.73

FLOQUIL PAINTS

We endeavour to keep full stocks of this fine range of paints at all times. bottle $1.30
Dio Sol solvent 8oz can $2.50
Dio Sol solvent 16oz can $3.60

FLOQUILS "Painting Miniatures" booklet $2.30

SAGAMI MOTORS (Can type)

No. 12201-9 12mm dia. 20 mm long double shaft	$24.60
No. 14251-9 14mm dia. 25mm long double shaft	$25.95
No. 16300-9 16mm dia. 30mm long single shaft	$19.45
No. 20320-9 20mm dia. 32mm long single shaft	$19.45
No. 22401-9 22mm dia. 40mm long double shaft	$23.35
No. 28241-9 28mm dia. 24mm long double shaft	$15.40

TIMEWELL Precision brass flywheels are available for above motors at $2.60 each. Please state motor number when ordering flywheels.

Our shop is located at
535 Plenty Rd.,
EAST PRESTON.

PLEASE all Mail Orders to
P.O. Box 144, COBURG, 3058.

KADEE 0 GAUGE

No. 805 Couplers	pair	
No. 805 Couplers	pair	$2.50
No. 810 Electro-magnetic uncoupler	ea.	$10.40
No. 811 Perm. Magnet Uncoupler		$2.50
No. 845 Coiled Knuckle Springs	doz.	$1.35
No. 850 Coiled Centering Springs	doz.	$1.35

KADEE H0 COUPLERS

No. 4 All metal coupler	2 pair $2.50
No. 5 Universal Coupler	2 pair $2.20
No. 6 Long Shank Coupler	2 pair $2.50
No. 7 Underset Long Coupler	2 pair $2.50
No. 8 Medium Length Coupler	2pair $2.50
No. 9 As for No. 5, but intended for bogie mounting	2 pair $2.50
No. 711 ¾ size for old time equipment	2 pair $2.50
No. 13 Coupler Test Kit	$9.75
No. 16 is the No. 6 Coupler with the No. 7 draft gear	2 pair $2.15

(No. 16 is for use on vehicles with buffers)
We offer a 10% DISCOUNT on lots of 10 or more packets of H0 couplers.
No. 205 Coupler Height Gauge $3.75

KADEE H0 UNCOUPLERS

No. 307 Electro-magnet	ea. $8.00
No. 308 Under track perm. magnet	ea. $2.30
No. 321 Between rails perm. magnet	pair $3.20

KADEE H0n3

No. 709 Perm. magnet uncoupler	pair $3.20
No. 714 Coupler	2 pair $2.50

KADEE N GAUGE

No. 1023 Coupler assembled	2 pair $3.60

Our offer of a 10% DISCOUNT on lots of 10 or more packets now also applies to N gauge.

No. 1055 N Standards Gauge	$4.60
No. 1039 Electro-magnet Uncoupler	$8.50
No. 1310 Perm. magnet uncoupler	pair $2.60
No. 1000 Bettendorf bogies with couplers	pair $3.00
No. 1007 Wheels, ribbed back, tapered axles	12 pair $3.00
No. 1010 Archbar bogies with couplers	pair $3.00

ON THE AUSTRALIAN SCENE

S.A.R. Stone goods shed H0 kit. In the last month's AMRM Reviews Bob Gallagher concluded that this was "an excellent Australian made product." We agree. It is still available — it is still only $11.95

A.R.H.S. BOOKS

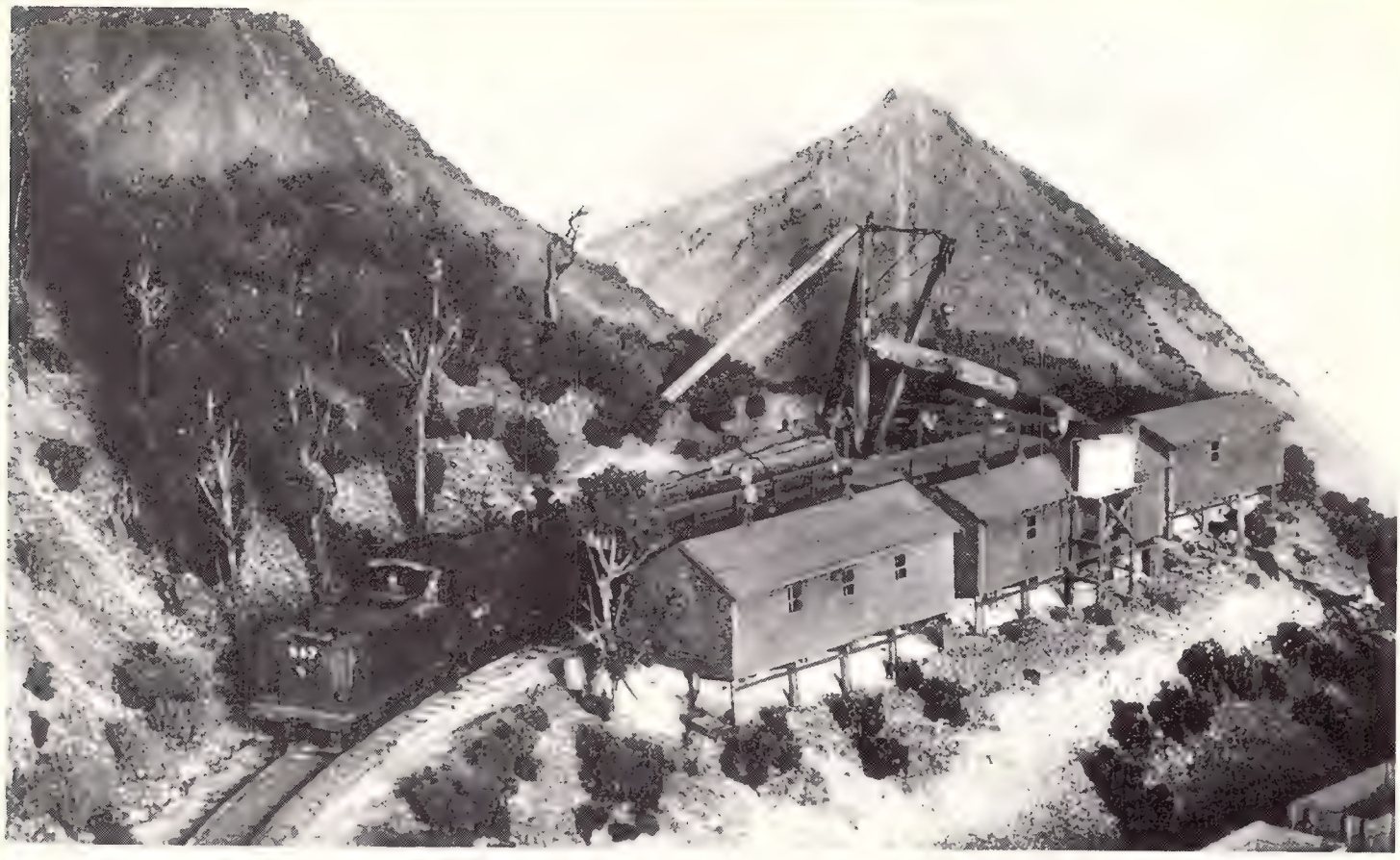
Australian Diesel Loco Pocketbook	$2.35
Steam in Australia	$7.90
V.R. Diesel Pictorial	$3.75
A.R.E. 1979 Calender with 12 excellent photos in colour and large, easy-to-read dates	$3.35

bankcard welcome here

THE MAIL ORDER SPECIALISTS —

McBEES HOBBY CENTRE PTY. LTD. P.O. BOX 144, COBURG VICTORIA 3058

P.O. Box 144 is registered at 535 Plenty Rd, East Preston. Items above are a selection only. Any other enquiries please write.
Licensed secondhand dealer.



Tall Tree Timber Co. engine 267 waits in the logging spur at Longdale for the gang to complete loading.

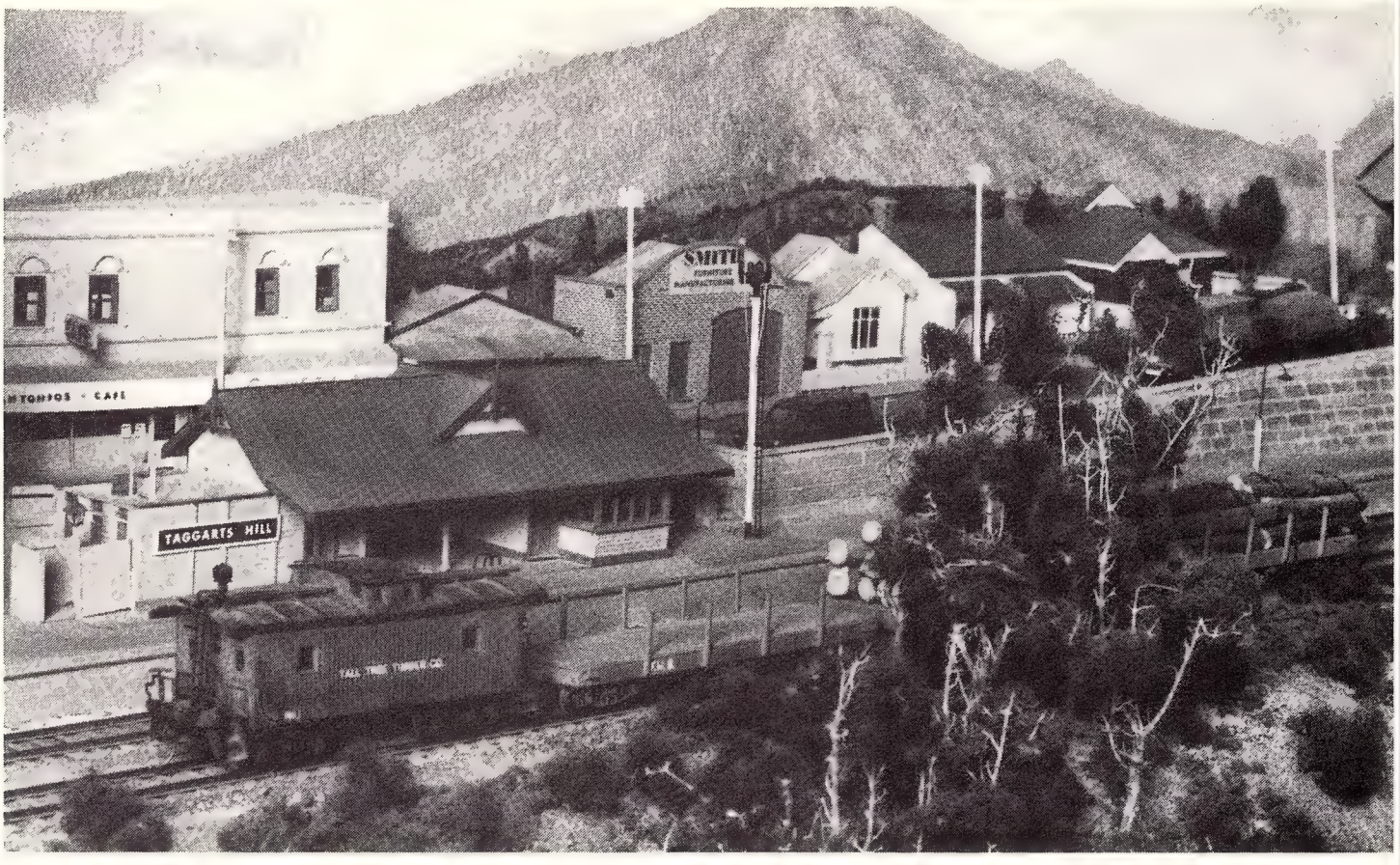
TIME FOR A CUPPA

an ABLO yarn by Kev Loughead

The members of the ABLO group aim for a realistic atmosphere during their operating nights hence their use of waybill cards as explained in the January/February 1977 issue; however this is just the beginning. The way in which you drive your train will effect the atmosphere — if one operator goes much too fast it makes the session toyish. As your train rolls along think about how a similar event would occur on a twelve inches to the foot railway. Now for that cuppa.

"Hey Jack," I yelled above the noise of old

In good weather the log train cautiously moves across the bridge toward Taggart's Hill.



Safely refuged in the loop the log crew can think of a cuppa while they wait for the ore train. McCauley's pub at Sherwood is only an hour away. All photos by Murray Billett.

267, "how do you think Bill is taking it?", for the wind and rain whistled down the valley as we slowly crossed the Brunel bridge towards Taggart's Hill on this cold July day. We had picked up two loaded log cars from the timber camp South of Longdale and had staggered up to the summit just before the bridge. Jack replied, "The brake will be giving him a rough ride in this wind" as he spelled from stoking and watched the gauge needle creeping back to 120 lbs. We were due to take the siding at Taggarts for a cross with the 'Ore' so I slowed 267 as we passed the Imperial Food Co. factory and then stopped short of the point. Bill shuffled past swathed in oilskins and, after unlocking and throwing the point, he waved us through. I eased her onto the siding and when Bill raised his arm I stopped. After he reset and locked the point he climbed aboard the brake and waved us forward until we stopped opposite the station to wait. By this time Jack had made a billy so we left 267 to breathe quietly and hurried down to the brake for a cuppa with Bill.

We chatted to him aabout his pigeons as he always brings a hamper for release along the line. We reckon the birds know the M.B.R. better than we do. Fifteen minutes later we heard the Ore blow south of the bridge, then it came thundering past with the hoppers rocking behind the hard working F7. "Looks like he's making up time," said Jack as we headed back to old 267. "How'd you like to dress up in one of these diesels?" I asked. "No way, the log'll do me", Jack smiled. The break was over and it's back to work if we're going to get to McCauley's before closing time.

(The Tall Tree Timber Co. has running rights over the Moping Branch Railway to carry logs from its camps at Longdale, Sherwood and Mintoo to Bark Bros. mill at Curlew Creek, and then to deliver the sawn timber to all stations on the M.B.R. They own eleven flat cars, one water tank, one box car, an old wooden brakevan and 267, an old 2-6-0 that was bought from the M.B.R. when it modernised with diesels. All M.B.R. trains have priority over the T.T.T.Co. log train.)

OPERATION

The longer I remain a model railroader the more convinced I become that we, as a group, should strive for prototype operation on our layouts. We continually call for exact scale replicas of the equipment used on the prototype but we will still remain in the 'toy' category if we do not operate our equipment as the prototype does. A finely detailed brass locomotive pulling a string of exact scale goods wagons around a layout for no apparent reason is not prototype operation.

One way we can introduce prototype operation on to our layouts is by using a card system. For those who aren't sure what a card system is I will explain.

Card systems are popular in America and have been well covered in MR and RMC. Basically they are designed to provide for the realistic movement of goods wagons to and from industries located on (and off) the layout. There are two cards, the first set match each item of rolling stock on the layout and is single sided. The second set of cards is double sided; one side shows a destination on or off the layout for an empty wagon while the reverse shows a destination for a loaded wagon.

At the beginning of an operating session a number of destination cards are taken from the pack, these are matched with the cards of suitable wagons awaiting loads. The wagons are then moved over the layout to the destination shown on the card. If the wagon was moved to a destination 'loaded' it remains at that destination a set time to allow for unloading. Once this has occurred the destination card is removed and the 'empty' wagon is returned to the marshalling yard on the next available train.

If a wagon was moved to a destination 'empty' it is left at that destination for a set time to allow loading to take place. Once the wagon is loaded the destination card is turned over to show where the wagon is to deliver its load. Of course some wagons will not be moved, loaded/unloaded, moved, loaded/unloaded and returned all in the one session, this will provide for some continuation between sessions.

Using a card system means that prototype problems can also arise on the model layout. Shortages of certain types of wagons will occur leading to delays in meeting orders (destination cards). This in turn will lead to overloading on some trains and so the need for bigger engines or double heading.

If these problems are not enough, some modellers have what could be described as a 'special situation' card pack. Cards are prepared showing various 'special' problems, storms, derailments, breakdowns etc. Each card is designed to create special problems and provide added interest — or ulcers as the case may be. Storms, derailments and breakdowns all cause delays and can wreak havoc to a timetable; all very prototypical. These cards are 'slipped in' during those odd periods when everything is going smoothly.

Two 'special' problems that the prototype here in Australia regularly encounter are seasonal loadings, e.g. wheat, sugar cane, tourists etc., and strikes. Strikes need not only be by railway staff to effect train operation. Recently the cement workers at Portland and Kandos, here in New South Wales, have been on strike. This has meant that several trains a week have been cancelled and now that the workers are back increased loadings will occur as production is stepped up to meet the demand backlog. These situations can be provided for just as easily as the more usual floods etc.

There are many variations on the card system as I have described it. In fact what I have described is just a brief summary of my readings in the American magazines. To my way of thinking a card system has two important points in its favour.

1. It is easily tailored to suit any layout bit or small and,
2. It adds interest and provides for more prototypical operation and that is what we should be striving for.

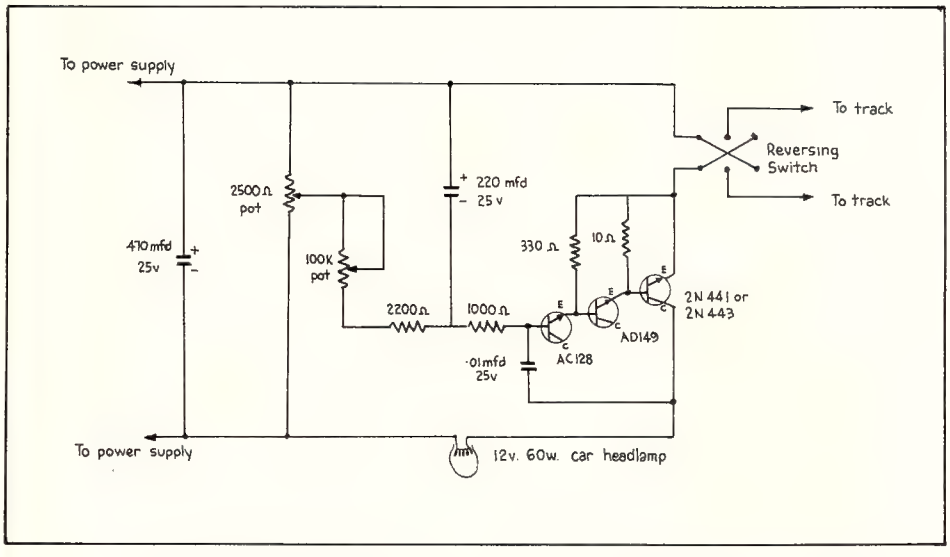
Perhaps someone who uses a card system on their layout would like to describe it in operation so that other modellers can see more clearly the added interest it can provide.

Stuart Livesey.

(A detailed article on card operation was published in the January/February 1977 issue of AMRM. Editor)

TRANSISTOR THROTTLE

by Les Paget



I have been asked to write about a Transistor throttle that has been seen around lately. It consists of a piece of aluminium with three transistors, a couple of resistors, a couple of capacitors and a globe or globes attached. Coming away from the piece of aluminium is a long lead about ¼" in diameter to which is attached a tobacco tin and on which is placed two knobs and a small switch.

This is a piece of bastardisation on one of many circuits described in January '62 'Model Railroader' by Linn Westcott. Locally available transistors had to be substituted, the globe was included as a means of protecting the output transistor and the power supply against those inevitable short circuits. The long lead was used so that a kind of 'walk-around' feature could be included. The idea being that one could follow the train which should be travelling at a slow walking pace; not like some jokers I know who whizz 'em around at 100 miles an hour just to test something or other, be it track, rolling stock, power supply or centrifugal force.

The 'works' can be fixed under the layout somewhere near the control panel and so that lead can be used to get to both ends of layout.

The circuit features the normal throttle control but also, an acceleration and braking adjustment which certainly works well. No jack-rabbit starts or stops. It can be varied to such a degree where shunting is realistic without the need for the patience of the Saints (not the football team), or where a loco without any load just won't stop at all. The happy medium is, of course, always desirable, no matter who she may be.

Seeing a train take up the slack of the couplers, start the train moving slowly, then finally reaching its required speed, all at the flick of the wrist is a delight to any modeller's heart. (Some still have them.) And, of course, with another flick of the wrist, the throttle is turned off and the train slows prototypically to a gentle stop. It is possible to count the revs. of the drivers before it finally stops. By controlling both throttle and accel. and brake rate controls, the variations on the theme are infinite.

Another method of control that would be prototypical would be that if a train's length was broken going over a ramp or with crook couplers, thus simulating a broken brake line; emergency, driver-sliding stops would be needed. This is accomplished by, after the acceleration period, turning accel. and brake rate control to off, then a quick flick of the control knob will produce the aforementioned soul-shattering stop. Once the train is complete and before starting again, the accel. and brake rate control is restored to its setting and away it goes again with its characteristic acceleration.

Of course, jack-rabbit starts and stops are still available to those without the skill to drive a train properly. Picture yourself as the Guard in the guard's van. Even some of the aforementioned codgers start and stop their train properly no matter what speed they attain. It is another skill that has to be acquired like soldering, taking a photo, drawing a plan or sticking two bits of wood or plastic together. It is an easy skill to acquire but you have to do it yourself; a bit of practice, that's all.

The small switch is a reversing switch which is meant to be handled, like anything else, correctly. Although, it does come in handy for obstreperous couplers.

The big snag — not edible — for a lot of people is the cost of this controller; $14 or thereabouts, depending on how much you can find in the junkbox, or borrow from someone else. In these days of inflation in an affluent society it is not an extortionist price to pay if you have to buy some means of controlling a train or want to better your control. The benefits are the ultimate, or almost, as compared to the potentiometer or rheostat where, in some cases, they are too 'sudden death', both stopping and starting, and it is only a quarter of the price of a TAT IV.

A few objections will be raised about this type of controller, apart from the price; one being that it keeps almost the same speed regardless of loading. This is not quite true as with a normal power supply, a few dry joints in the wiring and a loaded engine, a definite variation of control is necessary depending on the load and the capability of the engine to pull it. However, once the skill is attained to handle a train properly, this is all taken into account.

If you were put onto the footplate of a real live, 12" to the foot, steam loco, or into the cab of a diesel, you'd be busting to know how to control it and you'd do your damnedest to do it properly, wouldn't you? You've all seen a real train in action somewhere, both starting and stopping, so isn't it incumbent on us, as modellers, to do our demnedest to control our model trains the same way? I'll say it is and this little item is just the thing to do it.

The ADVERTISING DEADLINE for the January/February 1979 issue is the 15th December, 1978. PLEASE be EARLY.

LINESIDE INDUSTRIES THAT AREN'T.

The Editor's note on lineside industries in the September-October AMRM reminded me of several that I have come across that are — but aren't. Before you all become confused as I am let me try and explain.

Some time ago while I was stationed in Tamowrth, I had reason to visit Barraba. I drive down to the railway yard expecting to find a typical small country branchline terminus. I nearly fell out of the car with shock when I found rows of neatly stacked, multi-coloured, containers in the yard. Containers in large quentities are hardly what one would expect to find deep in rural New South Wales, but there they were. Visions of huge container ships sprang to mind to be immediately erased by the bleating of several sheep in a nearby paddock.

Some miles out of Barraba I discovered the reason for the containers, the Woods Reef Asbestos Mine. The asbestos, as it is mined, is packed into containers for shipment to processing plants. At the time I was there the containers were brought to the railhead by truck and left in the yard to be transferred to rail wagons and sent to Sydney. Unfortunately the last I heard was that the containers now go direct from the mine to Sydney by truck.

The other lineside industry that is, but isn't, that I have found is at Portland N.S.W. Portland is situated about 30 kilometres from Lithgow on the Wallerawang to Gwabegar line. Not except for a number of cement wagons in the small yard and a branch that curves away through a cutting to the west at the Sydney end of the yard.

This branch runs for just over a kilometre to the Blue Circle Southern Cement Works right in the middle of Portland. This branch is the home of two steam engines, 2605, an ex-NSWGR 2-6-2 saddle tank and a small green 0-6-0T that has been at the works for years. Both locomotives are in working order although, from the few times that I have seen them operating, it appears that it is 2605 that sees the most use. These engines are used for some shunting in Portland yard and to transfer empty cement wagons from the yard to the works and full wagons back to the yard. Both locomotives are stabled in the cement works.

So there are two lineside industries that aren't. Both the mine and the cement works are too big to be incorporated into the average layout but that doesn't mean that the traffic these industries generate is lost to the modeller. Both industries can become 'lineside' by the addition of some colourful containers or cement wagons and a 'blind' branch at a passing siding or small station. This type of operation need not be limited to asbestos and cement; e.g. heavy equipment for construction of a powerhouse or dam could be shipped into an otherwise peaceful hamlet, narrow gauge equipment for a tourist railway such as the Zig Zag in N.S.W. could be left at a siding seemingly in the middle of nowhere. The possibilities need only be limited by your imagination and what is plausible.

Stuart Livesey

With the opening of the new Tamworth Freight Terminal, all freight to and from Barraba will no doubt be conveyed by road transport from Tamworth, in fact the contract for such transportation was recently offered for tender. Only time will tell if the containers of asbestos are moved direct to Tamworth from the mine. (Ed.)

N.S.W. WAGON COUNTDOWN — 3

In 1955, the N.S.W.G.R. had 1,853 'K' type open wagons available for service. By 1978, only 116 vehicles of this type remained on the N.S.W.P.T.C. register.

Paul Rogers

STEAM ERA — Queensland

Ian Cutter describes the numerous classes of steam locomotives used on the Queensland Railways system.

It has often been said that the different classes of steam locomotives on a particular railway all look alike. This charge is most often levelled at the Great Western Railway, but consideration of the VR modified-front-end family, or the NSW Beyer Peacock engines, shows that the same situation could be said to apply in Australia. However, the Queensland Railways offer a welcome change, because, in any particular class of their locomotives, no two look alike. Any reader who dismisses this as a completely prejudiced view based on inadequate observation is probably quite right, so we shall press on with the facts.

To understand the locomotive history of the Queensland Government Railways, one must first of all understand the system of classification. Prior to 1890 there was no system, or rather the various separate railways each had their own. The Southern and Western Railway used the fairly common alphabetical system, which would have been expected to prevail in any composite scheme, but the fact that a C class engine could have been a Baldwin 4-4-0 of 1882 or a Neilson 2-6-0 of 1867 may have had something to do with the outcome.

The 1890 system of classification uses a letter donoting the number of coupled wheels (i.e. A = 4-coupled, B = 6-coupled, C = 8-coupled, D = tank loco), followed by the cylinder diameter in inches. For tank engines the letter is preceded by a figure giving the number of coupled wheels, although there is a tendency to omit this, in a similar fashion to the omission of the class letter for NSWGR engines. This basic system still did not distinguish between locomotive classes with wheel arrangements and cylinder diameters in common, and could also, as in the case of the A10 classes, fail to distinguish between different wheel arrangements. In order to overcome this, the name of the manufacturer was often added. The two groups most affected were the A10 and B12 classes, and details of these have been given separately in Table 1 in an effort to reduce the confusion in the rest of the article. This data comes from a duplicated publication of the Queensland Division of the Australian Railway Historical Society, entitled "Locomotives of the Queensland Railways, 1864-1899" by J. Armstrong.

TABLE 1.
Details of A10 and B12 classes.

Classification		Type	Number	Service
Early	1890			
A	A10 Avonside	2-4-0	4	1865 - 1896
B	A10 Neilson	0-4-2	13	1865 - 1913
A	A10 Ipswich	2-4-0	1	1877 - 1890
	A10 Fairlie	2-4-0	3	1878 - 1912
	A10 Baldwin	4-4-0	2	1880 - 1902
D	B12	2-6-0	4	1870 - 1912
E	B12 Kitson	2-6-0	12	1875 - 1936
E	B12 Avonside	2-6-0	3	1877 - 1922
E	B12 Ipswich	2-6-0	2	1878 - 1915
E	B12 Dubs	2-6-0	6	1878 - 1929
	B12 Neilson	2-6-0	2	1878 - 1902

The A10 Ipswich was the first locomotive built at Ipswich, where it was constructed from spare parts for the Avonside engines. The A10 Fairlie engines were not, as the name might suggest, the "Fairlie's Patent" articulated design, but were so called because, although built by the Vulcan Foundry, they were supplied to Queensland by the Fairlie Engine Company. These engines, in common with the A10 Baldwin class, had no letter classification because they were never in service on the Southern and Western Railway. Details of the Baldwin engines can be found in the ARHS Bulletin for September, 1950.

The B12 Kitson engines had a longer piston stroke than the B12 class, which came from the same manufacturer. The B12 Avonside engines were similar to the B12 Kitson class but with a six-wheel tender. The Ipswich engines were, as one might suspect, built from spare parts, this time for the Kitson engines. The Dubs and Neilson engines were similar to the other E class designs.

Returning now to the system of classification, modifications to the original design could be indicated by doubling the letter, as in BB18¼, although in fact the CC19 class was actually a modification of the C18 and the DD 17 did not really have a great deal in common with the D17. The prefix in the AC16 class indicated the American origin of these engines, and in the PB15 class indicated the alteration of a previous design to suit passenger service. The letter D was used as a suffix on one occasion to show that a tender engine had been converted to a tank.

Although some classes were confined to particular lines, there were a reasonable number of transfers, particularly when the individual railways were eventually linked. However, two particular groups which were incapable of wandering far afield were the Abt engines of the Mount Morgan rack railway and the 2' gauge engines of the Innisfail Tramway. Again it is convenient to list them separately, in Table 2, rather than clutter up the later table.

TABLE 2.
Abt and Narrow-gauge locomotives

Class	Type	Number	Service
4D11½	0-4-2T	2	1898 - 1922
D13½ Abt	0-6-0T	6	1900 - 1952
6D8½	0-6-0T	6	1900 - 1962
6D9½	4-6-0T	3	1920 - 1938
6D9	0-6-0T	1	1922 - 1927
B9½	0-6-2	3	1924 - 1963

A brief description of the Mount Morgan railway can be found in the ARHS Bulletin for December 1950. The Innisfail Tramway is fully described in the book of that name by J. Armstrong and G. Verhoeven (ARHS, Brisbane, 1973), which gives side elevations of the 6D8½ and B9½ classes as well as numerous photographs. Plans and photographs of the 6D9½ class, as originally built by Hunslet for service in the first world war, can be found in the April 1976 and subsequent issues of the English magazine "Model Railways".

This brings us to Table 3, which lists all the other locomotive classes with simplified details of those covered by Table 1. Most of this information is derived from the monthly Bulletin of the Australian Railway Historical Society. Published information must inevitably differ at times, but most dates agree to within a year or two. The number of locomotives in a class is intended to give some idea of relative numbers, so for the purpose of this article it doesn't matter whether there were actually 98 or 100 of the B15 class engines. Anybody wanting an alternative list as a check could consult the appendix to "Railways of Australia" by C.C. Singleton and D. Burke (Angus & Robertson, Sydney, 1963).

Table 3 finishes at 1965, but it should not be taken to mean that all steam engines had been withdrawn by this date. The number in service began to decline with the general introduction of the diesel locomotive, starting with the 1300 class in 1952. Anybody wanting to model the transition period would probably prefer to model specific engines, and this is beyond the scope of the article. The chart gives a pictorial summary of the more important classes listed in the table.

TABLE 3.

Class	Type	Number	Service
A10	2-4-0	8	1865 - 1912
A10	0-4-2	13	1866 - 1913
BB	0-6-6-0	1	1867 - 1868
B11 Neilson	2-6-0	4	1867 - 1905
B12	2-6-0	29	1870 - 1936
8D11	0-4-4-0	1	1876 - 1902
A11	2-4-0	1	1878 - 1902
A12 small	4-4-0	3	1878 - 1913
C13 Baldwin	2-8-0	4	1879 - 1938
C15	2-8-0	4	1879 - 1938
B11 Baldwin	2-6-0	2	1880 - 1917
A10 Baldwin	4-4-0	2	1881 - 1902
4D9	2-4-2T	2	1881 - 1895
C16 Baldwin	2-8-0	3	1882 - 1925
A12 large	4-4-0	18	1882 - 1929
C13 Dubs	2-8-0	6	1883 - 1929
B13	4-6-0	112	1883 - 1950
6D11½ motor	0-6-0T	3	1884 - 1914
8D15	2-8-2T	5	1884 - 1922
6D13	0-6-2T	2	1884 - 1926
4D10 Ipswich	2-4-2T	3	1884 - 1902
4D10	2-4-4T	4	1887 - 1907
B15	4-6-0	98	1889 - 1934
A12	4-4-0	25	1890 - 1925
A14	4-4-0	8	1894 - 1930
PB15	4-6-0	233	1900 - 1965+
6D16	4-6-2T	20	1901 - 1951
B15 Con	4-6-0	93	1903 - 1965+
6D13½	0-6-0T	6	1904 - 1938
C16	4-8-0	151	1908 - 1965+
B13 Baldwin	4-6-0	1	1911 - 1924
B17	4-6-0	21	1911 - 1960
C18	4-8-0	3	1914 - 1934
6D15	4-6-4T	1	1918 - 1922
B16½	2-6-2	1	1918 - 1950
AY	2-6-0	1	1919 - 1923
BY	2-6-0	1	1919 - 1927
C17	4-8-0	227	1920 - 1965+
C19	4-8-0	26	1922 - 1964
B14 Baldwin	2-6-0	1	1923 - 1927
6D17	4-6-4T	30	1925 - 1965+
B18¼	4-6-2	83	1926 - 1965+
B16D	4-6-0	2	1933 - 1950
B13½	0-6-0	6	1933 - 1961
AC16	2-8-2	20	1943 - 1965+
ASG		10	1943 - 1945
DD17	4-6-4T	12	1948 - 1965+
Beyer Garratt		30	1950 - 1965+
BB18¼	4-6-2	55	1950 - 1965+

Some of the locomotive classes deserve further comment.

The BB class were double Fairlies, although it has been suggested that Robert Fairlie had little to do with the design of these particular engines. This may be why the design was said to be "outstanding in its combination of the greatest proportion of wrong methods and trouble-prone features ever likely to be encountered in one locomotive design". A detailed half-sectioned plan and elevation is on page 110 of the Transactions of the Newcomen Society for 1962. Although three locomotives were delivered only one actually ran any trials, these taking place on 23-12-1867 and 5-1-1868. The fastidious modeller who includes this engine in his stock will of course confine his layout to a representation of the area around Ipswich, and may feel obliged to consult the Bureau of Meteorology to see whether he should include model puddles on the roadways.

Despite the most unfortunate impression that this engine must have created, the Queensland Railways did later order another double Fairlie, the 8D11 class. Both classes of Fairlie engine are described in "The Fairlie Locomotive" by R.A.S. Abbott (David & Charles, 1970).

The sole representative of the A11 class entered service as a 2-4-0, but was converted to the 4-4-0 wheel arrangement in 1886. The "A12 small" class were the first Baldwin loco-

motives on the Queensland Railways, subsequent classes from the same manufacturer being the C13, B11, A10, the C16, B13 (from the Cairns-Mulgrave tramway) and B14 Baldwins, A12 large and the AC16. The two Baldwin A12 classes are described in the ARHS Bulletin for April, 1950, and the A10 and B11 classes were described in September of that year. The ARHS Bulletin for April 1966 carried an article entitled "Early Baldwin Locomotives of the Queensland Railways" and further comments appeared the following October. The A12 class was similar to Baldwin's A12 large but was built locally.

The C15 class originally comprised only two engines, but in 1891 a further two were converted from the 8D15 class. Conversely, the 4D10 class began life as A10 class 0-4-2 tender engines. The 4D9 class, built by Dubs for the Bundaberg Railway, was described in the ARHS Bulletin for April, 1951.

Although the B15 class survived for some 45 years, its numbers began to decrease fairly early in life as conversion to B15 Con began in 1903. This involved a 9" increase in driving wheel diameter and a 20 psi increase in boiler pressure. Ultimately 93 were modified, the remainder being known as B15 Goods. The PB15 class was originally build with Stephenson valve gear during the period 1900 to 1912, but a later batch of 30 built in 1925 were fitted with Walschaerts valve gear. An H0-scale drawing of No. 444, the Stephenson type preserved in the Redbank Museum, was published in the Australian Model Railroad Magazine for March/April, 1975.

The 6D16 class were originally built as 4-6-2 tank engines but were converted to the 4-6-4T wheel arrangement in 1904. An article on this class can be found in the ARHS Bulletin for September, 1975.

The 6D11½ class — not to be confused with the "6D11½ motor" class — were built as locomotive cranes and entered service in 1903. The crane was removed from No. 1 in 1911 and it was written off in 1927 after having been offered for sale in 1924; No. 2 had its crane removed in 1912 and was written off in 1917. (These two engines have not been included in Table 3.)

The 6D13½ class is described in the ARHS Bulletin for September, 1968. Conversion to the B13½ class began in 1933, and although the last of these was officially written off in 1961 the Ipswich works shunter was still in use in 1965, the end of the period covered by this article.

The pattern engine for the C16 class entered service in 1903, and a very detailed sectioned drawing of the engine, but not the tender, was published to a scale of ½" = 1' in "Engineering" for May 27, 1904. The next representative of the class did not enter service until 1908, which seems a little odd when one considers that there were eventually 150 of them. A drawing of number 670 to Sn3½ scale appeared as a supplement to the October, 1962 issue of the National Model Railroad Booster.

The C18 class became extinct in 1934, not through being scrapped, but through being superheated and incorporated into the C19 class which had originally been developed from them.

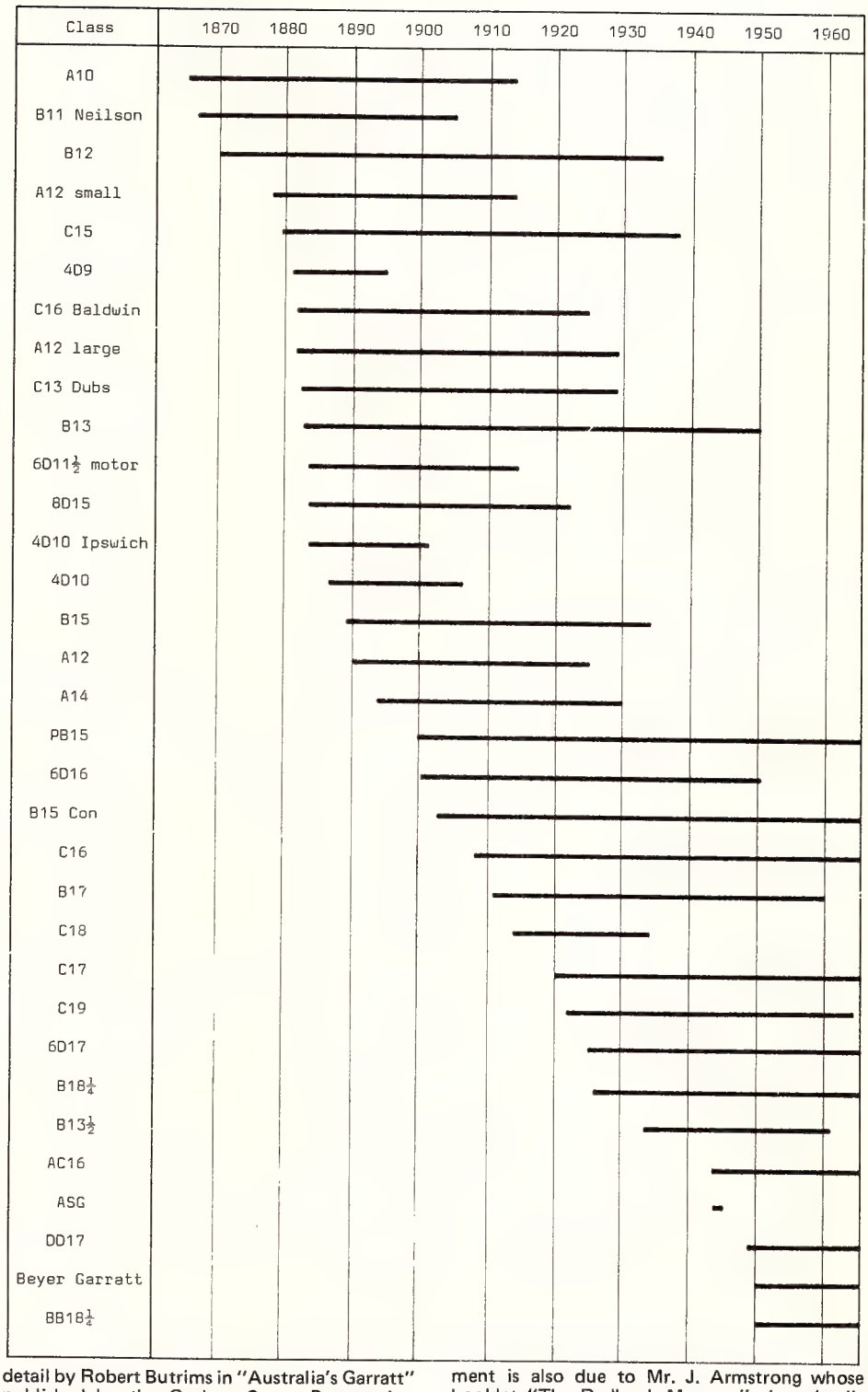
The 6D15 was a tank engine converted from a PB15 class and later converted back again.

Another class with only one representative was the B16½. This is of some interest as being a coke-burner, as well as being the only Australian representative of the 2-6-2 wheel arrangement. Detailed dimensions can be found in the ARHS Bulletin for February, 1939.

The AY and BY locomotives, along with the B14 Baldwin, came from the Chillagoe Mines and Railway Company. They were similar to the SAR Y class, and it is difficult to see why they should have been classed separately, because they appear to have been identical. Details and photographs appeared in the ARHS Bulletin for March 1977.

The two B16D engines were converted from the 6D16 class, one in 1935 and the other in 1939.

Dimensioned sketches of the AC16 and DD17 classes can be found in the issues of the ARHS Bulletin for July 1944 and May 1949 respectively. The ASG is described in great detail by Robert Butrims in "Australia's Garratt" published by the Geelong Steam Preservation Society.



A drawing of the BB18¼ appeared in the Australian Model Railway World for September 1962, but the H0-scale drawing in the Australasian Model Railway Magazine for September/October 1970 is probably more readily accessible. A descriptive article appeared in the ARHS Bulletin for August, 1963.

There are two general references which give further details of some of the classes mentioned above. The book "Locomotives of Australia" by Leon Oberg (Reed, Sydney, 1975) describes the A10 Neilson, 8D11, B13, B15, PB15, C16, C17, C19, B18¼, AC16, DD17, Beyer Garratt and BB18¼ classes. Although I haven't actually seen a copy I presume the David & Charles book "4-8-0 Tender Locomitives" by D.R. Carling would at least touch on the C16, C17, C18 and C19 classes.

Throughout this article I have generally indicated the source of my information so that this can be checked if anybody is so inclined, and it must be apparent that most of it derives ultimately from the publications of the Australian Railway Historical Society. Acknowledgement is also due to Mr. J. Armstrong whose booklet "The Redbank Museum" gives details of the locomotives preserved there, and who answered some specific queries for me. In particular he pointed out where some previously published information was in error, in that the B12 Kitson engines were not larger than the B12, there never was a B15D class, and the accepted dates for the 6D11½ class were not correct. In addition to this he provided dates for a number of other classes mentioned in this article.

Note:

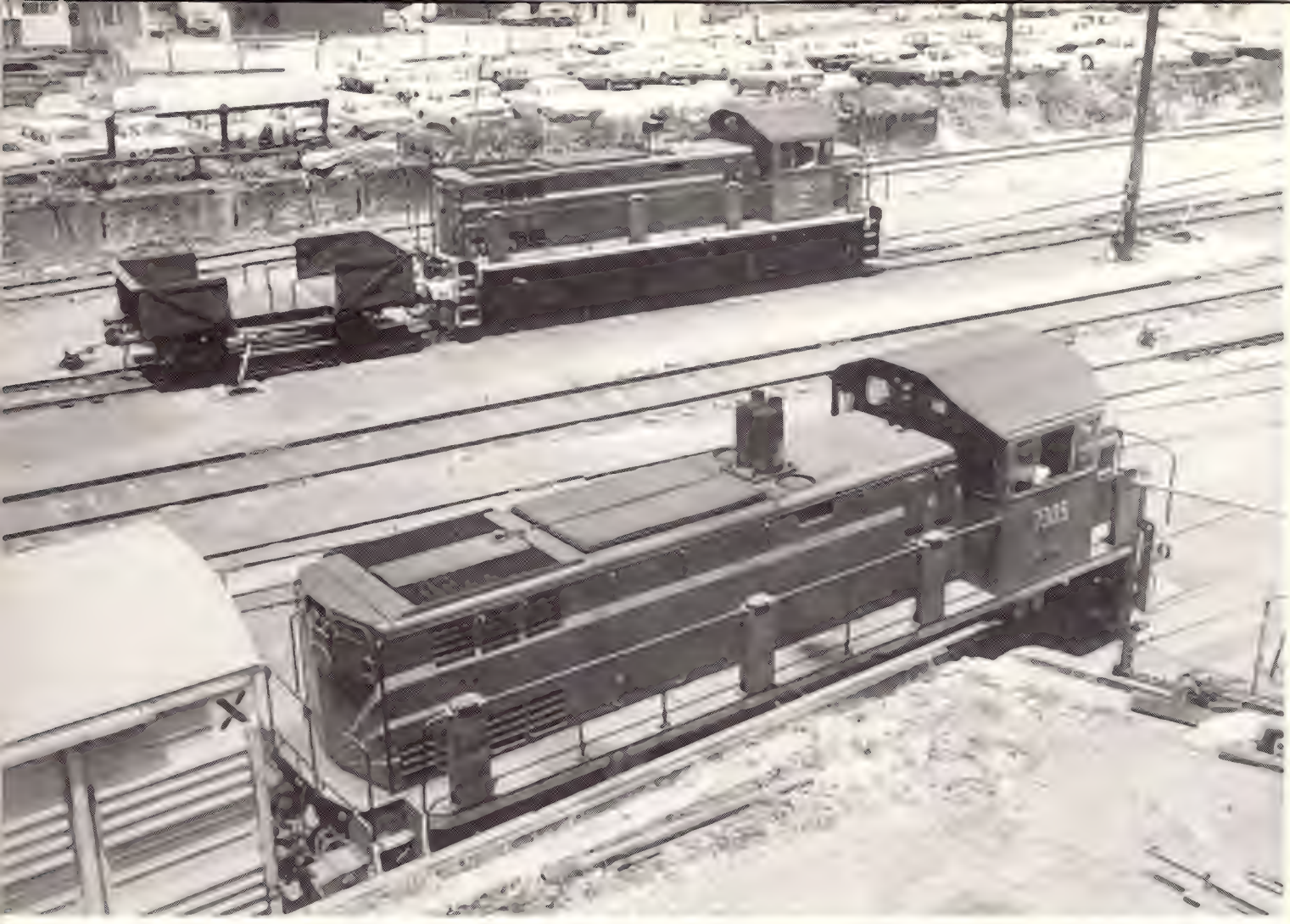
Since the above article was originally submitted for publication, the following particularly relevant articles by Mr. John Armstrong have appeared in The Bulletin of the Australian Railway Historical Society:

December, 1977 The B13 (F Class) Locomotives of the Queensland Railways.

February, 1978 The B16½ Class Locomotives of the Queensland Railways (see also July and August, 1978)

April, 1978 The C, D and E Class Locomotives.

The book "4-8-0 Tender Locomotives" does in fact include Q.G.R. photographs of the C16, C17 and C19 classes, but no drawings.



Nos. 7305 (nearest camera) and 7350 shunt side by side in Alexandria yard on hot Monday of November 22, 1976. 7350, normally at Yerrongpilly unit was running-in after Eveleigh shops attention. Photo: Leon Oberg.

Latter series units, Nos. 7335 and 7341 near the old Port Waratah coal loader with a train of BCH's on Saturday March 16, 1974. Photo: Leon Oberg.

N.S.W.P.T.C. 73 Class Diesel Hydraulic Locomotive

Part 2 of the series on Walkers Diesel Hydraulics. Phil Collins

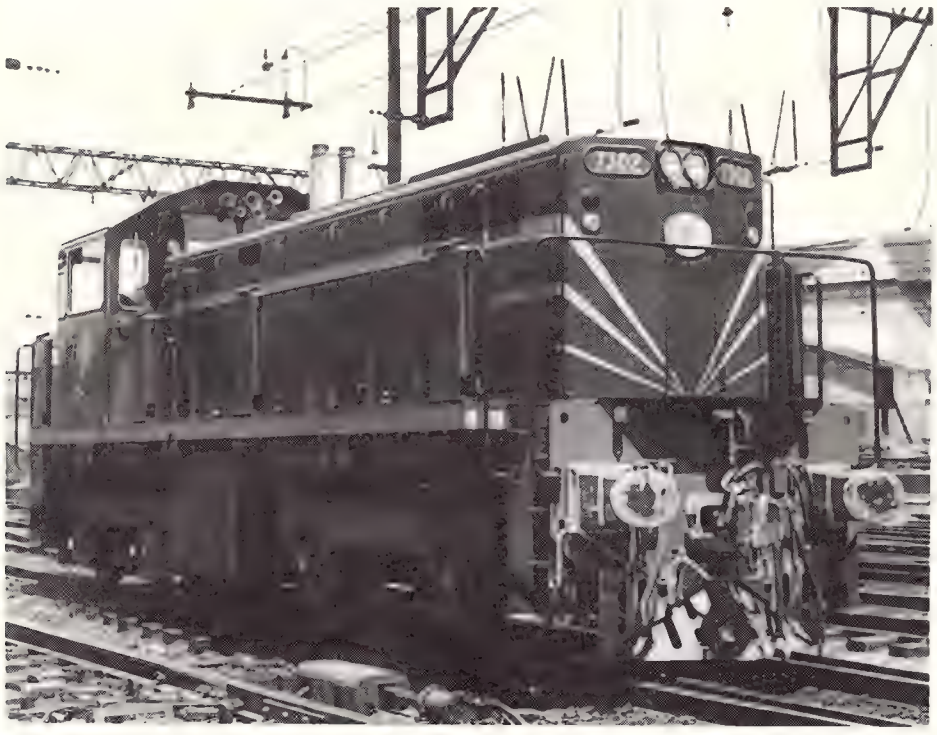
The N.S.W.R. received its first diesel locomotives, if one ignores the Comet power vans, when three of the four 79 class diesel electrics entered service around Sydney Terminal and Carriage Sheds. The fourth worked at the St. Marys Munitions Works. In 1948 two units were transferred to the Woomera Rocket Range and subsequently to Commonwealth Railways. The remaining two units, 7920 and 7923, continued to work the Sydney Terminal roster aided by various classes of steam locomotives, until 1974 when they were replaced by newer 73 class diesel hydraulics.

The new units from Walkers in Queensland were not only replacing earlier diesels but also the last of the state's steam shunters as well. Let's look at how this transition evolved.

Prior to 1960 the majority of shunting and transfer work was carried out by steam; only the 79 class and the infamous 44 class had dared to challenge the steam locomotive in this field. However, in 1960 the ten units of the 70 class diesel hydraulics entered service in the Port Kembla area in this role. Two years later X-100 rail tractors were introduced, followed in 1963 by the first X-200 class units. Even with these locomotives steam was still king, particularly in the larger yards. Then, by 1965, and with the dieselisation programme in full swing, the N.S.W.R. realised that by the early to mid 70's they would need diesel shunters in some numbers.

In that year a trial-horse was built; 7201

7302 as built. N.S.W.P.T.C. photo.



7302, No. 2 end leading. N.S.W.P.T.C. photo.

Overhead view of 7342. Note the recessed air filters. G. Ball photo.

rolled out of Chullora Workshops to begin its colourful career. This locomotive was a 700 h.p. diesel hydraulic. It was bad enough that it was the beginning of the end for steam shunting but to add to the insult the new shunter was built on a D58 class tender underframe and even the original bogies were modified to provide the diesel traction.

Although a troublesome unit, particularly in later life, it proved successful enough for the N.S.W.R. to decide in favour of diesel hydraulics as replacement shunting locomotives. This decision was probably assisted by two other factors as well. Firstly, the record of the Silver City Express power vans and the success of the Walkers W1 prototype in trials with the Queensland Railways.

Accordingly, in October 1969, the N.S.W.R. placed an order with Walkers Limited of Maryborough, Queensland for 20 diesel hydraulic locomotives of 700 gross horsepower. A second order for an additional 30 units was placed in July, 1971. These new locomotives were to be the first diesels built in Australia for the N.S.W.R. that were not of N.S.W. origin.

The locomotives were designated GH700 by Walkers and in service were destined for the medium to heavy shunting and transfer work.

The GH700 specification was a development of the W1 prototype specification; W1 and the background to the Queensland Railways' DH class was covered in the March/April, 1977 issue of A.M.R.M. The new class differed from its northern cousins in a number of ways. Although of the same conventional hood type the 73 class was fitted with a low profile short hood; the full width cab and longer rear hood being similar to the DH class. The low profile short hood greatly increased visibility as well as giving the locomotive a more attractive line.

Illuminated number boards and dual headlights are fitted at both ends and five-note air horns nestle under the cab roof overhang both front and rear. Transition couplers, standard on all N.S.W.R. diesels, are fitted and oval shaped buffers complete the picture in the coupling department. Twin muffled exhaust stacks are another feature of the 73 class not present on the DH class. These mufflers are teardrop shaped in cross section.

The bogies are of fabricated steel type and are quite different in appearance from the bogies on all the narrow gauge Walkers units. Besides a different general arrangement the most notable difference is that they are devoid of sandboxes and, in my opinion, have a cleaner and enhanced line than the narrow gauge bogie. Sand is stored in eight (4 per side) sandboxes which also form the main handrail supports; a very natty idea which also makes modelling scale handrails a lot easier. The sand is applied to the rails at the driver's discretion as opposed to the automatic application method employed on most main/branch line units of the N.S.W.R.

Overhead view of the front section of 7342. G. Ball photo.

The paint scheme follows basic N.S.W.R. thinking. The superstructure is in Tuscan or Indian Red with a chrome band around the waist and footplate. The waistband extends to the noses to help form the familiar three chrome vees. A N.S.W.R. emblem completes the picture on the noses. The sandboxes are also Tuscan. However, the handrails themselves are black, as are the bogies, fuel tank and undergear. The headstocks are red and the buffers, exhausts, airhorns and cowcatchers are all silver. A recent adjustment to this colour scheme appears on the recently outshopped 7304 which had a silver cab roof (as at early 1978).

In the power department the 73 class uses the Caterpillar D379 V8 whereas the DH class uses the smaller D353 six cylinder motor. The former motor gives the 73 class 650 h.p. for traction from a total rating of 700 h.p. The engine is fed by twin turbo-chargers and maximum power is developed at 1300 r.p.m. The

settings on the torque converter are such as to keep the engine r.p.m.'s as close to 1300 as possible, thus obtaining maximum horsepower at all locomotive speeds. This gives greatly improved shunting performances as well as prolonging engine life.

The transmission mentioned above is a Voith Model L4r4UZ turbo type containing four hydraulic torque converters. There is no reverse gear as such and change of direction is accomplished by reversing the fluid flywheel. A Westinghouse brake compressor is driven from the rear of the transmission and the cooling fan from the front of the engine via a Voith fluid coupling.

All the equipment mentioned in the above

two paragraphs is contained in the long hood, the short hood housing the batteries and the cab heating and ventilating equipment. The large thermostatically controlled engine cooling fan is located on top of and to the rear of the long hood.

Final transmission is via bogie-mounted Walker-Gmeinder GM170EHA and GM170E axle mounted gearboxes, one set in each bogie. These gearboxes are connected to each other and to the Voith transmission by cardan shafts. The stopping department is in the hands of Westinghouse controlled clasp brakes.

Visibility from the cab is extremely good due to the previously mentioned low front hood and the high amount of glass area used in the cab design. Dual controls are fitted and the crew comforts include heating, cooling, adjustable seats, hotplate and drinking water. A very low cab noise level is achieved due to the cab being mounted to the locomotive frame via rubber mounts. No toilet is fitted as the locomotive is designed for short-haul work. Multiple unit operation is designed for up to four locomotives and we will see later how double heading is quite common.

The 73 class is both longer, at 36 feet, and heavier, at 49 tons, than the DH class. The 49 tons and 700 h.p. combine to give a continuous tractive effort of 25,000 lbs; more than 50% greater than the DH class. All other relevant data is summarised in the Specification List.

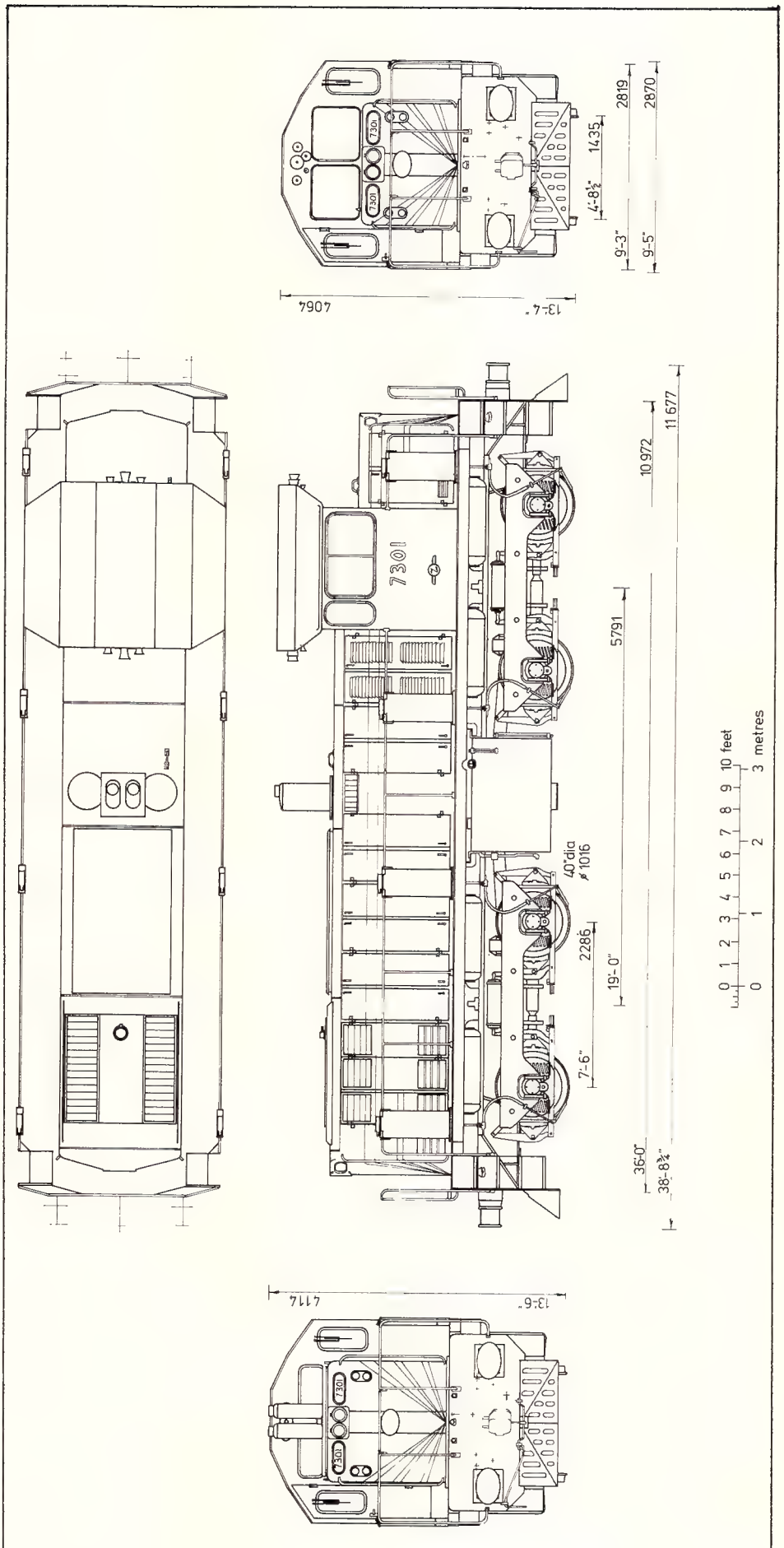
In operation the 73 class has been most successful, with the possible exception of 7315. This unit, based mainly at Goulburn, has had two engineroom fires, several derailments and has even been for a dive into the Goulburn Depot turntable pit. On this last occasion it was seriously damaged.

The N.S.W.R. purchased the class mainly for shunting and their prohibition from mainline use is "officially" due to the lack of vigilance controls. This latter facility is a device which illuminates a light if the Vigilance Control Button is not pressed every 60 seconds or so. The light lasts approximately 15 seconds then a whistle is sounded for a further 15 seconds. If the button is still not depressed after this period the train brakes are applied automatically.

However, despite the lack of the above safety device the class is still seen on many suburban trip workings and when mainline operationis a necessity there seems no hesitation to use them. In the DH article I mentioned that the diesel hydraulic has a distinct advantage over diesel electric traction when it comes to traversing floodwaters. The reason for this is that the diesel electric can only negotiate a depth of 50 m.m. of water whereas the diesel hydraulic of the DH/73 classes can negotiate up to 300 m.m. of water depth.

Three examples of this trait of the 73 class are listed below. The first was the big floods of 1976 when the 73 class had its first swim. In March of that year water covered the line near Bourke and 7323, one of the two Dubbo based units, ran a couple of freights and a ballast train from Nyngan to Bourke and return. The following month 7322 from Orange, 7324 from Dubbo and 7325 from Parkes were dispatched to Menindee when floodwaters began to rise. The buffers were even removed in anticipation of having to haul the Indian Pacific through the floods but the water did not actually rise above rail height and the 73 class units were returned to their depots in May after working a few ballast trains. The most recent flood-working by the class was in March 1977 when water crossed the line at Hexham. On this occasion 7328 + 7330 and 7327 + 7329 + 7333 were reported working in multiples to keep the line open. There was even a report of rear engine banking on a heavy load.

Multiple unit operation of 73 class is quite common although the above operation is the only triple header my research has unearthed. The class often double heads rail and ballast trains on the Eastern Suburbs Railway and double units are used in shunting the Port Waratah coal unloader. On the E.S.R. working the units used are fitted with exhaust gas scrubbers due to the extended use in the confines of the tunnels. Two other reported underground excursions include the Australian Railway Historical Society's Christmas outing in December 1975 when 7341 and 7345 con-



N.S.W.P.T.C. 73 Class Diesel Hydraulic Locomotive.
Drawn: Roger Johnson. Feb, 1978.
Scale: 87.1:1 (HO)

No. 7314 was almost brand new when it became the first of its class allocated to Goulburn for yard shunting in June 1971. Note the original side cab window configuration. On this occasion, the driver was still under a locomotive inspector's instruction. Photo: Leon Oberg.

7301 fresh out of paint shops with PTC logo on nose. Note the straight pilot. R. Gallagher photo.

veyed 5 cars plus van to Hawkesbury River via Strathfield on the down and the North Shore and underground on the up. Performance on Cowan Bank left a little to be desired though. The other event took place in January 1976 when a 73 class and a load of TRC refrigerator vans made an unscheduled visit to the City Circle. The only other use on a passenger train I can find is when 7342 plus two JHG vans and six S trucks loaded with members of the Institute of Per-Way Engineers visited the E.S.R. in late 1976.

I mentioned earlier that trip working is quite common. The Dubbo units work to Troy Junction and the Abattoirs, and the unit formerly at Taree was used on Manning River siding work. They also work many suburban trips in the Sydney and Newcastle areas. Stemming from this it is of note that a 73 class can return down the 1 in 37 from Carlingford to Clyde with a greater load than a 48 class D/E of some

Continued on page 25

SPECIFICATIONS

Engine Model	Caterpillar D379 series B, V8
Engine Horsepower	700
Horsepower (available for traction)	650
Transmission	Voith L4r4UZ
Final Drive	Gmeinder types GM170/EHA/469 and GM170/E/327B
Total Weight	49 tons
Axle Load	12.25 tons
Wheel Arrangement	B — B
Bogie Centres	19'0"
Bogie Wheelbase	7'6"
Wheel Diameter	40"
Length over Headstocks	36'0"
Length over Buffers	39'4"
Height (maximum)	13'6"
Width (maximum)	9'3"
Fuel Oil Capacity	500 gallons
Continuous Tractive Effort	25,000 lbs at 5.4 mph
Maximum Load (speed on 1 in 40)	300 tons at 5.4 mph
Maximum Speed	40 mph
Gauge	4'8½"

Builder: Walkers Limited, Maryborough, Queensland.
Operator: N.S.W.P.T.C. (formerly N.S.W.G.R.)
Class Numbers: 7301 — 7350
Date in Service: 5th October, 1970.

Distribution List as at August 30th, 1977.

Eveleigh	7301 — 7314, 7317, 7320 — 7321, 7339 — 7345
Goulburn	7315 — 7316
Cootamundra	7314
Lithgow	7326
Orange	7322
Dubbo	7323 — 7324
Parkes	7325
Broadmeadow	7327 — 7338
South Grafton	7318
Werris Creek	7346 (actually at West Tamworth), 7347
Yeerongpilly (Qld.)	7348 — 7350

N.B. 7320 was formally allocated to Junee and based at Albury.

USING YOUR HORSEBOX

by Phil Curnow

If you build a horsebox you have a small problem — how to make use of it. Certainly it could be run as a decoration in a passenger consist although a freight wagon would do the same job. Far more interesting if one of the customers of your railway is a horse breeder who regularly loads a horsebox for urgent delivery to another station on the line. You can decide whether to load/unload at the station platform or at the goods shed platform which would increase the shunting moves required for the train.

Another way is to build a showground/racecourse which has an even larger scope for operating variety. Lay a short siding into the showground area and you can send horses there for regional shows, race meetings and horse sales as well as having circus visits and special passenger trains for football games. Scenically you need only the rear view of a grandstand with a few well chosen signs to give the general idea. There were quite a few racecourse sidings on the SAR so let's take a quick look at two different types.

Just on the Adelaide side of Gawler station was the frequently used Racecourse Siding which joined the double tracked mainline. In the late 1940s one qualified SAR employee was required to work the ground throw levers for the trackwork while another was required in the Racecourse Office. When a special passenger train from Adelaide was scheduled to enter the Siding the Gawler signalman had to obtain permission from Train Control after the train had left Salisbury which was the last manned station prior to Gawler.

The train halted before the Down Main facing switches and the employee there asked the signalman at Gawler to release the ground frame lock. This obtained, he would set the route across the Up Main, hand signal the train onto the siding then reset and lock the frame after the train was clear.

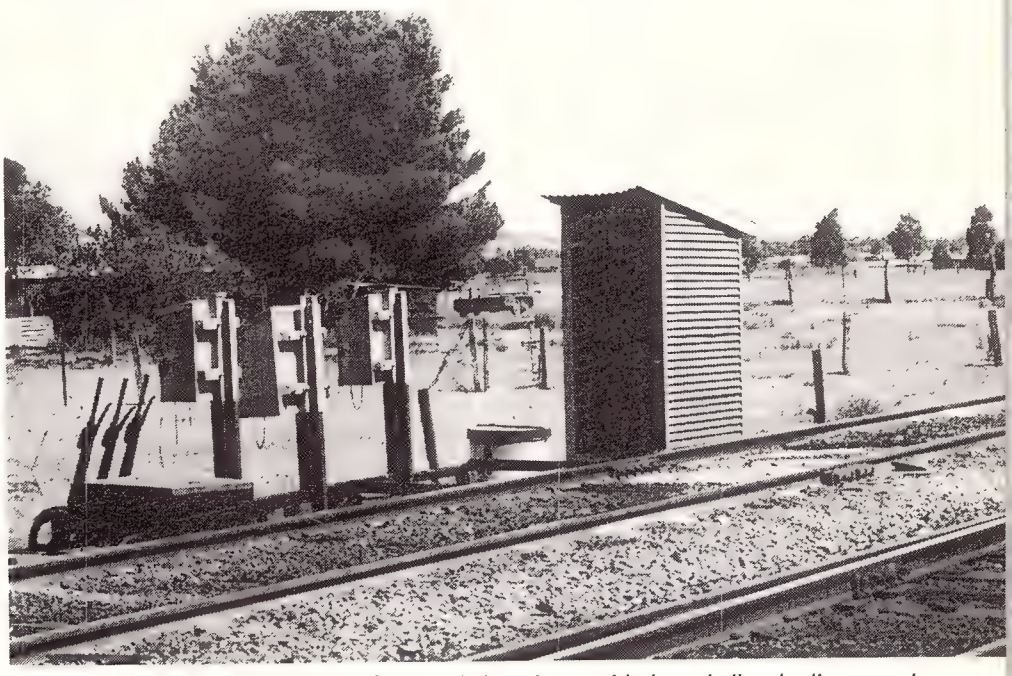
He then advised the signalman who would tell Control and Salisbury that the train was clear of the Main Line. When a train was to leave the siding the employee at the Racecourse Office advised the Gawler signalman who then obtained permission from Control. Permission granted he then released the ground frame lock which allowed the employee to set the track and clear the Up starting signal. The employee at the Office then directed the Guard to start his train. When the train is clear of the siding the signal and switches are reset and the signalman locks the frame and advises Control and Salisbury.

This procedure may appear longwinded and time consuming but remember that Safety is of the utmost importance so on your layout don't set the switch for the Racecourse Siding until the train has stopped on the main line.

In contrast the Kadina Racecourse Siding was rarely used and as a result the switches were spiked for the main line and the switch stands had the usual painted indication for day use but did not have lamps. A train control phone was provided in an office near the horse unloading platform. The Station Master at Wallaroo had to send two qualified employees to Kadina on race days to "attend to the signalling of trains, manipulation of switches and these employees must also unlock the gates and panels leading to the racecourse and stow them clear of the openings used by passengers replacing the gates and panels and locking them at the end of the day" (from 1955 General Appendix). The ganger also had to be in attendance to unspike the switches leading to the siding and respike them at the end of the day. Train Control had to note in the train register when this was done.

Another way to use your horsebox is in fan trip service. Earlier in this series I mentioned that the ARHS (SA Division) had run a trip with a hired VR horsebox. On 21/5/77 they combined once again with the Adelaide

This photo shows the Gawler Racecourse platform with the Grandstand in the background. In the distance can be seen the shelter which is situated alongside the point where the siding joins the main line.



A closer view of the shelter, ground frame and phone boxes with the main lines leading towards Adelaide.

The layout of Gawler Station yard area can be clearly seen in this photo which also shows that the racecourse siding forms a headshunt for the goods yard which is beyond the platform.

Because the Gawler Racecourse is within the boundaries of the Adelaide suburban rail network it has been normal practice for the special trains to be composed mainly of suburban rolling-stock. Doug Colquhoun took this photo of 722 and a string of dogboxes passing Islington on the return trip to Adelaide in 1952.

General view of horsebox fittings with the lower door resting on the platform. On our side of the fence is a load of mallee roots for someone's fireplace.

Alco 953 leads 520 through toward the road overbridge at Yantaringa. The turntable at Bridgewater is not far ahead now.

All photos by Phil Curnow, 21/5/77.

Typical fan tour . . . heads at all the windows.

Hunt Club for a trip to Nairne to mark the opening of the 1977 Hunt season. At 10.15am steam engine 520 departed Adelaide with a CD van, three steel coaches, VR horsebox FP7 and brakevan 4420. Eight horses owned by Hunt Club members were in the stalls and a hoarde of hounds viewed the countryside from the windows of 4420's baggage compartment.

520 took water at Blackwood and arrived in Nairne in time for a barbeque lunch. The majority of the horses that were to take part in the Hunt had already arrived by road. The railed horses appeared a little shaken and nervous as they were lead from the stalls onto the platform. As there were no windows in

The rear of the train as it left Adelaide with a steel car in all red livery, FP7 and brake 4420. Already the hounds are trying to see where they are going.

their compartments they had travelled in near darkness although securely held by a variety of restraining partitions. The exterior doors were swung apart and suddenly the horses were confronted by bright sun and a sea of faces and cameras. The fox hounds (not dogs . . do you mind!) were rather excited and keen to leave their van which had its baggage doors securely roped together. Alas they had to wait until about 2pm when the Hunt would begin.

Because of an SAR ban on tender first working of 520 and 620 class engines Alco 953 followed the train into Nairne. It assisted with the shunting of the consist from the passing line onto the goods shed track so that the main and passing lines could be left clear for regular train working. Shunting completed it coupled to 520 and hauled it back to Bridgewater where the steamer could turn after which it was hauled back to Nairne and prepared for the run back to Adelaide. Its duties over 953 was scheduled to return light engine to Mile End depot however an unexpected engine failure on one of the Bluebird railcars working the day passenger train from Mount Gambier caused a change in plans. The diesel was sent to Monarto South to assist the railcars through to Adelaide. After the shorter than normal Hunt the train was loaded and returned to Adelaide.

These are but a few possible uses of a horsebox on a model railway so you can be sure that if you are going to build one the effort will not be wasted. Just a bit more useless information but the Kadina and Wallaroo Jockey Club, operators of the Kadina Racecourse, transferred their midweek meetings to other courses in 1968 and ceased altogether in July 1977 after 104 years as a leading country club. The racecourse is now used by the local pony club and for picnic race meetings.

One of the horses waits impatiently for door D to be lowered and for his release.

N.S.W.P.T.C. 73 Class Diesel Hydraulic Locomotive.

Continued from page 22

900 h.p. Maybe the hydraulic transmission gives the advantage over the D/E without dynamic brakes. The class has also worked beyond the suburban limits on a profile train to Waterfall.

The two most interesting workings, apart from the Hexham floods, seem to be double heading with a 44 class from Orange Yard to East Fork Junction on an overloaded freight and a second example of rear engine banking. This latter effort involved double headed 73 class at the front and a single 73 class on the rear of a train from Darling Harbour up to Redfern. Maybe we might see double 73 class banking at Tumulla if the locomotive shortage on the West continues.

One can see, therefore, that for a class purchased primarily for shunting they have had very interesting and varied duties so far. Shunting, however, is what they are employed at most of the time. In this role they can be seen at every major yard in the state (see distribution list) as well as Sydney Passenger Terminal and Carriage Sheds and Yeerongpilly in Queensland. The Yeerongpilly units shunt Clapham and South Brisbane. Possibly the classic picture of a modern shunting 'consist' is a 73 class and shunters truck heading out to, say, the Boral oil depot at Botany to pick up some oil tank cars.

Since the first unit came into service on 5th October 1970 the 73 class have performed sterling work all over N.S.W. Modifications have been restricted to those mentioned for the flood working and the E.S.R. duties, plus removal of the triangular 'snow plow' projection of the pilot (cowcatcher) of the earlier units (subsequently corrected by the builders on the latter units) due to unit to unit coupling difficulties. The other obvious modification was to the cab side windows. When delivered the initial batch had three panels. Approximately 4/5 of this glass area was formed by two sliding panes and the remaining 1/5 by a fixed pane closest to the driving controls. The modification, included in the second batch, was to make the entire glass area of sliding panels.

In modelling application the 73 class is a natural. A whole small layout could be based on 73 class units due to the varied uses they have been put to. Already Berg's Models have announced the future release of a brass H0 model of the 73 class and I have seen a couple of excellent kit-bashed jobs as well.

Like the DH article I have had assistance from many and referred to much previously published and reported information which is acknowledged below. A third and final article on the W.A.G.R., Emu Bay and Mt. Isa units will complete this series in the near future.

Acknowledgements:
Mr. H. Boge, Walkers Limited.
Railway Transportation (various issues)
Modern Locomotives of the N.S.W.P.T.C.
N.S.W. Digest (various issues)
Railway News (various issues)

N.S.W. WAGON COUNTDOWN – 4

In 1955, the N.S.W.G.R. had 472 'BCH' type bogie coal hopper wagons available for service. By 1978, only 104 vehicles of this type remained on the N.S.W.P.T.C. register.

Paul Rogers

N.S.W. WAGON COUNTDOWN – 5

In 1955, the N.S.W.G.R. had 35 'RH' type four wheeled covered cement hoppers available for service. This class is now extinct.

Paul Rogers

TRADE PRACTICES ACT 1974

The above act is now in force and contains strict regulations on advertising.

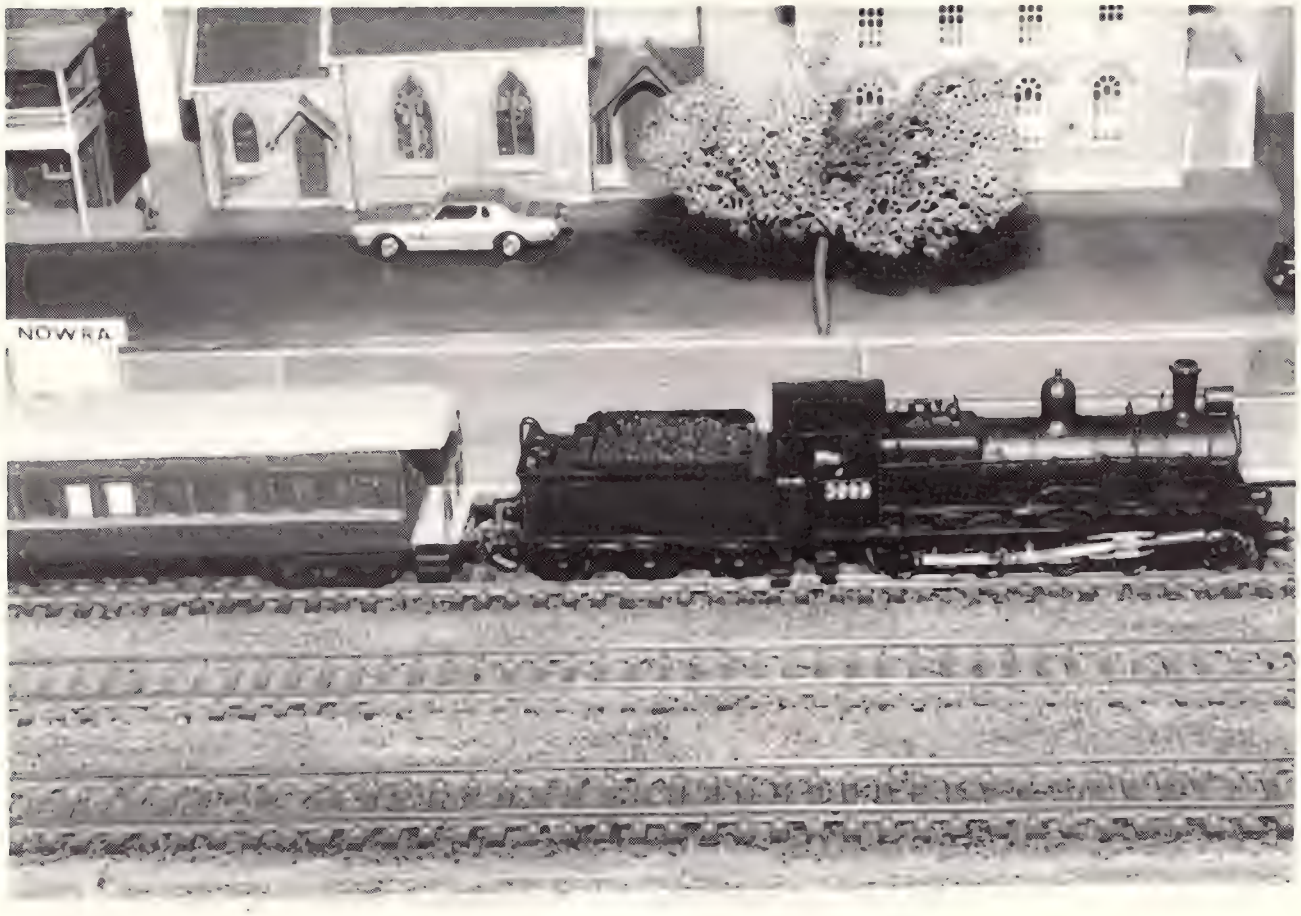
It is not possible for this company to ensure that advertisements which are published in this magazine comply with the Act and the responsibility must therefore be on the person, company or advertising agency submitting the advertisement for publication.

In case of doubt, consult your lawyers.

SCR Publications.

TWENTY YEARS OF HO TRACKWORK

Alan Templeman relates his experience with 16.5 mm gauge track



3009 ready to leave Nowra with an "all stations" passenger train. The track is Peco Streamline ballasted by the Clive Huggan method.

I have always been interested in railways, both prototype and model, and my introduction to the world of model railways as a child was the usual tinplate Hornby Gauge 0 clockwork (or should I say spring drive) set. However once this phase was passed, studies and sporting activities, plus lack of money, left me with no opportunity to pass on to more sophisticated stages of the hobby at that time. It was not until 1957 that I had time and a little money to enable me to take a serious interest in railway modelling as an adult hobby.

It was probably fortunate that at that time I was living in a boarding house in Orange (N.S.W.), with no space for any type of layout (N gauge was far in the future at that time), because this prevented me from rushing in and starting a layout without doing some planning first. I began reading model railway magazines (The Railway Modeller, Model Railway News and Model Railroader), joined the Australian Model Railway Association, and contemplated the possibilities available at that time. I decided to use 16.5 mm gauge nickel silver or brass track, and to use the two rail method of electrification. I also decided to use scale track and wheel standards. This decision made things rather difficult for me at the time due to lack of suitable equipment available, but it has meant that track and pointwork that I purchased in 1957 and 1958 is still in use in my present layout (my third), although my original English prototype 4 mm scale locomotives and rolling stock have been sold and replaced by N.S.W. prototype in 3.5 mm scale.

It is interesting to think back on the developments that have taken place in the hobby, and what I have learned in the intervening twenty years. It is particularly interesting to consider the developments in H0 track and pointwork in that period of time.

The Fibre Based Era.

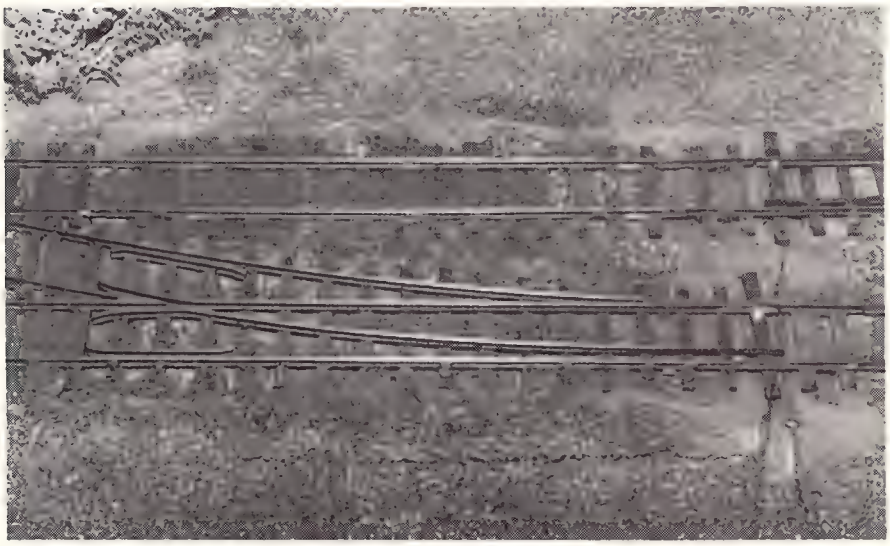
Having made my decision in 1957 to use two rail 16.5 mm gauge nickel silver or brass track, I started to purchase what I could so that when I returned to Sydney in 1959 I was able to commence my first layout in the basement of my parents' house. This was a complete disaster, but from it I learned a great deal. The second layout was an improvement but still had many faults when marriage resulted in it being dismantled, and following the acquisition of my own house the third layout was commenced in 1962. This layout is still slowly developing. Most of the track and pointwork (apart from items found to be unsuitable) from the first and second layouts was re-used in the third and is still in service.

However to return to 1957 when I first started purchasing track and pointwork — at that time the range available was very limited. Having ruled out Hornby Dublo three rail (Hornby Dublo's change to two rail was still to come), Triang non scale two rail, Marklin's stud contact and the range of track and pointwork in Code 125 steel rail by Wrenn (with moving from type points), there was not much left to choose from. There was a range of track and pointwork made by Tenshodo available in Australia at that time using brass Code 100 rail on a wooden sleeper and trackbase. This was to scale standards but the curves were fixed radii (although a number of different radii were available) but flexible track appealed to me more.

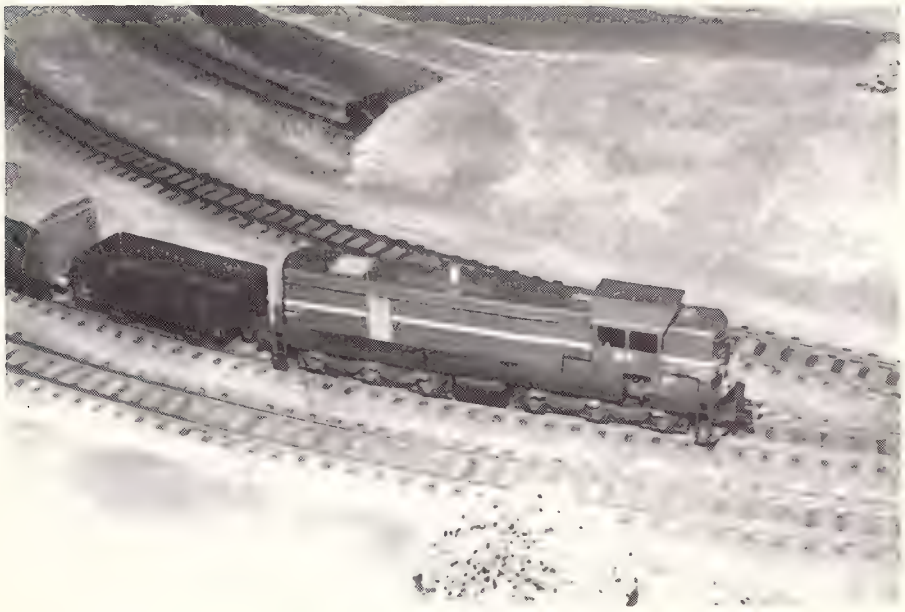
Virtually the only scale 16.5 mm gauge track of the flexible type available in Australia at that time was Pecoway which used Code 95 nickel silver rail and a black fibre sleeper base. Peco also made a matching line of 36" radius turnouts with a soft cast metal frog. I purchased a quantity of Pecoway track, but only succeeded

A Pecoway fibre based turnout with cast soft metal frog.

5088 on a down freight passes through Wollongong. The track here is fibre based Pecoway.



A Gem fibre based turnout.



Harold Warren's scratch built 49 class is here seen running on a section of Welkut track.

in obtaining one pair of the Pecoway points, because at that stage Peco stopped making readymade points and produced instead "three in one" point kits which could be assembled as right or left standard 36" radius turnouts, curved turnouts or as "Y" turnouts. These had a hard cast metal alloy frog.

The Pecoway track was very good (with one reservation that applied to all the flexible tracks using fibre sleeper bases and which I will mention later) and there is still a substantial amount of this track in use on my present layout. Finding the Peco point kits not particularly satisfactory (probably because they were intended for use on wood fibre insulation board which was not available in Australia) I imported a quantity of Gem scale nickel silver 36" radius turnouts and matching track from England. (Gem Universal track with Code 125 rail was available in Australia for a while, but not the scale Code 95 nickel silver type.) This was in the days of import restrictions and I had to make out an import application in sextuplicate (each sheet a different colour) to enable me to do this. The Gem track, like the Pecoway, was based on black fibre sleeper base.

The Gem points were constructed by having been soldered in a jig and some of the soldering was not 100% accurate so a certain amount of resoldering was necessary to obtain the correct clearances. However once they were correctly soldered they proved quite satisfactory turnouts. I also managed to obtain from the Model Dockyard in Melbourne a quantity of Welkut track, which was also English made using Code 95 flat bottom nickel silver rail and black fibre sleeper base. Welkut points were also available but were of the moving frog variety which did not appeal to me, as I had decided to use scale standards.

As mentioned earlier my present layout was commenced in 1962 in part of the back verandah of my house. While the house is brick, the back verandah is fibro. Consequently there is considerable variation in temperature from a hot summer day to a cold winter night. The basement of my parents' house, which had housed my first two layouts, had much less temperature variation. On the debit side it also tended to be damp, so my present location is a vast improvement. Being part of the house also has great advantages over a shed in the backyard or using part of a garage, so I am extremely fortunate in having this location available. I have digressed slightly from the subject of trackwork, but the variation in temperature proved a significant factor as I will

explain later.

The Pecoway track and one Pecoway point (I had melted the soft alloy frog of the second trying to solder a bonding wire to it) and the Gem and Welkut track and Gem points (not the Peco point kits) plus some early plastic sleepered brass railed Shinohara track and pointwork (which I will mention again later) had been salvaged from my first two layouts and was reused. I had learned from my first two layouts of the importance of planning every aspect of a layout on paper before starting work, so many drawings were made and discarded before the final track plan was decided upon.

These drawings were all done to scale as only by drawing to scale can you satisfactorily work out just what you can or cannot fit into the available space. The average No. 6 H0 turnout is 9" long and unless these are drawn to scale you will inevitably find that when you come to laying track you cannot fit in all the pointwork that you had planned. Minimum radii of curves must be decided upon and drawn to scale (preferably with some transition leading into the sharpest section of your curve) to ensure that your chosen radii will fit in the desired locations. Gradients should be calculated, and a plan also drawn of the framework to carry the trackwork. Planning should help to avoid for example having a crossmember of the framework just where you want to mount a sub baseboard point motor. With a few minor changes I have adhered to my original track plan. However back to the subject of H0 trackwork. I will discuss my own layout in greater detail in a later article.

As the sleeper spacing of the English Pecoway, Gem and Welkut track differed to that of the Shinohard (as well as the Shinohara being brass while the others were nickel silver) I laid the main double track circuit and Wollongong yard (considerably modified from the original ti fit in the available space) in the English fibre based track, and the two return loops (giving point to point running) which were to eventually have Nowra on top of them in the Shinohara brass track.

Learning by Experience.

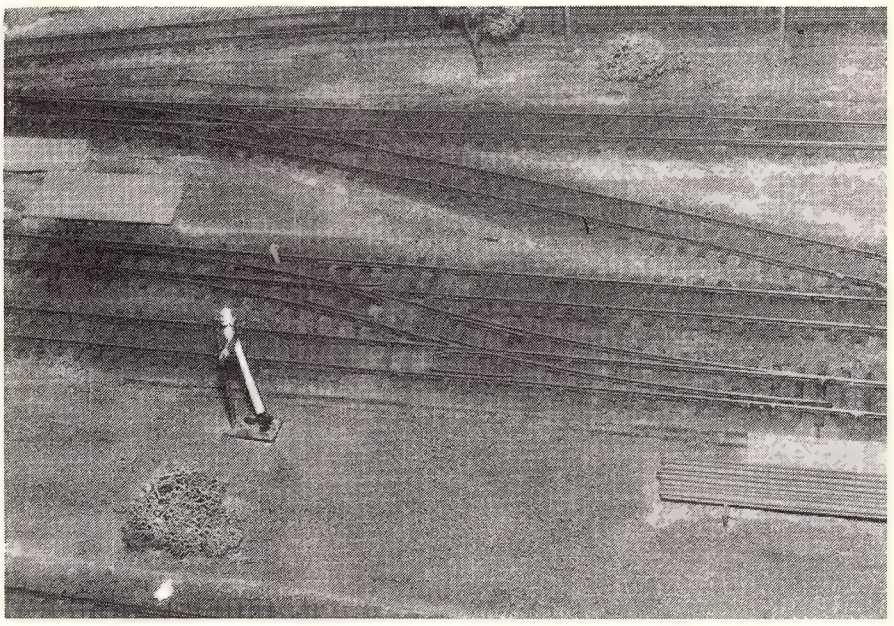
A couple of interesting problems cropped up at this stage. As mentioned earlier my first two layouts were built in the basement of my parents' house where temperature fluctuation was not great, and small gaps between sections of rail ("thickness of a playing card" — to quote from one English book on the subject) proved adequate. The double track mainline circuit on my present layout was laid in the autumn and winter of 1963 using the same small gaps. The first really hot day of the following summer produced some quite horrifying buckling of the track because of the greater variation in temperature on my back verandah, as compared to the previous basement site. Hence the gaps had to be widened. I should have thought of this when laying the track, but did not. Experience is a great teacher.

Also to my consternation my track developed waves like a roller coaster. My construction method for this section was a framework of 2" x 1" timber on edge with 2" square legs, with the track supported on ¼" hardboard (Burnie Board and Masonite) on which was ½" Caneite and a final track base of 1/8" cork. The hardboard was not sufficiently rigid and the trackwork developed undulations.

Correcting this necessitated gluing longitudinal 2" x 1" timber on edge under the track base and between the 2" x 1" cross members of the framework. These pieces were jacked up to eliminate the undulations until the glue had dried. By this method the track was restored to being tolerably level. In more recent work I have substituted ½" Pyneboard (well supported by 2" x 1" framework) for the hardboard, still with ½" Caneite and 1/8" cork on top. The Caneite is an excellent sound deadener and takes track spikes with ease. The Pyneboard has the rigidity which the hardboard lacked, and this type of track base has proved most satisfactory.

Another problem which I encountered during my earlier track laying efforts does not occur with the present day flexible tracks with plastic sleeper base. I had read an article in the Railway Modeller describing a method of laying and ballasting track at the same time. The track was laid temporarily so it could be cut to size, fishplates fitted etc. The track was then lifted, section by section, and the track bed covered with a liberal coating of Casco cold water casein glue. This has been supplanted in more recent times by the white PVA glues and is not now readily obtainable, but the casein glue had the advantage of being very slow setting, giving plenty of time to work, lining up the track and eliminating kinks etc. The track was then relaid in position, and when lined up and positioned correctly Erg granulated cork ballast was spread over the still wet glue and weights applied until the glue had set (this type of glue gave you at least an hour of working time and took at least 12 hours to dry). The following day the weights were removed and the excess ballast removed with a vacuum cleaner for re-use. The track was then ready for wiring and the ballast coloured to taste.

This system appeared to work well until some three months later derailments on curves commenced. Checking the cause revealed that the track was slightly under gauge. This was also the case on straight sections but naturally the problem became apparent on the curves first. The only reason that I could think of was that the slow setting cold water glue had soaked into the fibre sleepers and caused shrinkage. The remedy was to detach one rail from the sleeper base all the way around and spike it back in position at the correct gauge. The advent of plastic sleeper base has removed this problem.



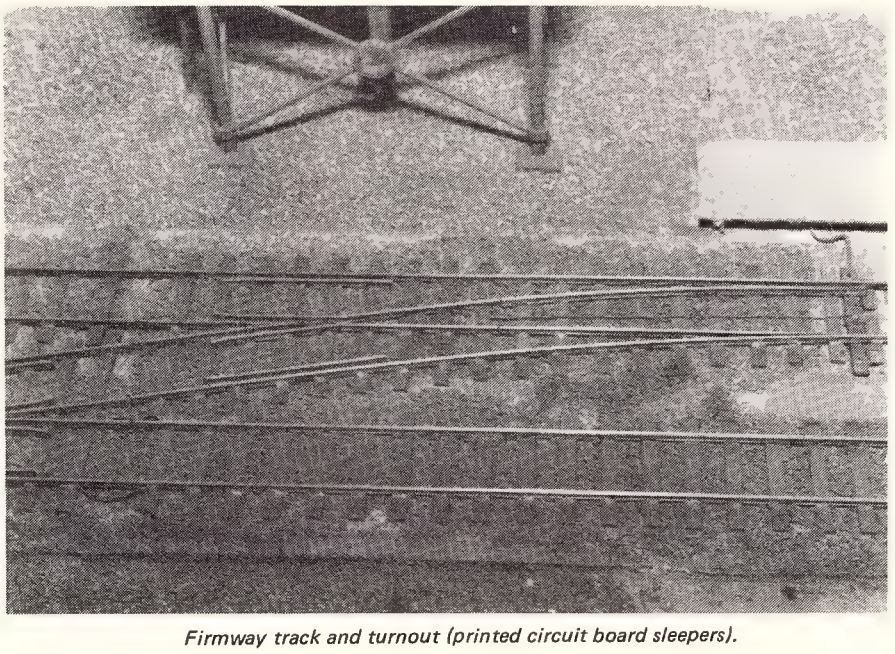
Gem fibre based track and pointwork.

Track with Printed Circuit Board sleepers.

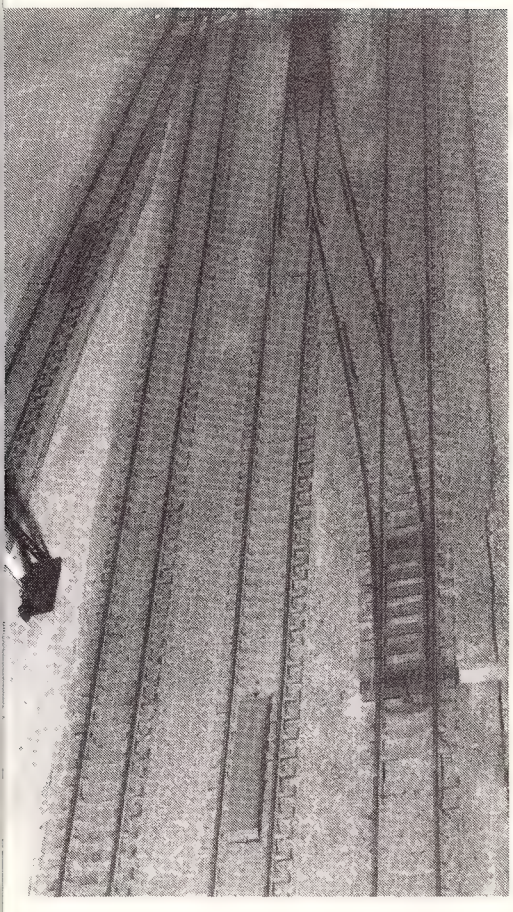
Another type of track used on my layout deserves mention. For a period a brand of track and pointwork called Firmway was available in England, and I used some of this. The rail was soldered to printed circuit board sleepers (hard fibre with a thin layer of copper sheet attached). A gap was cut in the copper sheet in the middle of each sleeper to prevent a short circuit. Flexible track was available with only one rail soldered to the sleepers. When this was laid to the correct curvature the second rail was soldered in position to the correct gauge. This provided an excellent track. Once laid there is little that can go wrong with it. Although Firmway is no longer made there are a couple of other makes of this type of track advertised in the Railway Modeller, as well as supplies of readycut and gapped printed circuit board sleepers for those who wish to construct their own track. It is not the quickest way of laying track, but if done properly produces beautiful track.

The Plastic Based Era.

Around 1958-59 the first plastic based Shinohara H0 track and pointwork appeared on the Australian market. At first it was only available in brass Code 100 rail. Nickel silver Code 100 Shinohara H0 turnouts and track followed some time later, and then eventually Shinohara produced H0 track and pointwork using Code 70 nickel silver rail. By the early 1960's plastic sleeper base had supplanted fibre in most brands of flexible tracks.



Firmway track and turnout (printed circuit board sleepers).



Peco Streamline track and Shinohara pointwork (plastic sleeper base).

For someone starting a layout today Code 70 track is worth considering if you are using scale wheel standards, but as I was heavily committed to Code 95 and Code 100, I still use these. Once Code 95 or Code 100 rail is ballasted and painted it does not appear overscale. Indeed with the use of heavier rail on prototype railways Code 100 is not far overscale.

For the last sections of my layout I have used Shinohara Code 100 nickel silver No. 6 turnouts and Peco Streamline nickel silver Code 100 track, both of which have a woodgrained plastic sleeper base. For ballasting I have adopted the method described by Clive Huggan (A.M.R.M. Nov./Dec. 1973) using rubber carpet adhesive but using Erg granulated cork ballast instead of sand. For those who missed reading the article, the technique is to lay the track first and then put the dry ballast on and shape the edges and clean from the top of the sleepers (unless you wish to model a newly ballasted section of track in which case the sleepers may be covered with ballast). The ballast is wet with water from a plastic spray bottle to which a little detergent has been added (as a surface tension reducer or "wetting agent"). The rubber solution is diluted 50/50 with water (again to which some detergent has been added) and dropped on to the ballast with an eye dropper. It will be seen to spread evenly through the ballast, thoroughly impregnating it. After allowing it to dry for 24 hours any cleaning up of ballast in unwanted places is done, the ballast coloured to taste, and given a coat of Matt Estapol Clear Varnish Finish to counter the shiny surface of the rubber glue, and secure any loose particles of ballast on the surface.

The end result is a dull matt finish with the ballast particles well secured os that they do not come loose to interfere with point blades etc. The rubber adhesive does not set completely rigidly and this slight resilience helps reduce noise.

Some track and pointwork which has recently become available is Nickel Plate brand. This is made with Code 100 nickel silver rail and plastic sleeper base and matches Shinohara Code 100 track and pointwork and Peco Streamline track. The Nickel Plate track and pointwork has been given a weathered appearance. I have not had the opportunity of trying it but it looks very good. An interesting feature is that the turnouts are available in No. 5 and No. 7 frog angles, which complements the Nos. 4, 6 and 8 of Shinohara.

While I have used a good deal of Peco Streamline track, I have not used their pointwork as that which has been available to date is "Universal" with wide frog and checkrail clearances to enable non scale wheels to pass through it. Scale wheels can be used with it but they have a rough ride over the wide gaps. As I have all scale wheels there is no reason to use other than scale turnouts. Also Peco points have a plastic frog, which I dislike. I prefer the electrical continuity of all metal frogs. I understand that Peco are going to produce a series of turnouts with metal frogs but that these will still be to "Universal" standards, and another series of turnouts to scale standards which will have plastic frogs! So while Peco Streamline track is first class, I prefer Shinohara turnouts.

Thus we see that the modeller starting a layout today in H0 has quite a range of good quality track and pointwork in Code 100, and also the Shinohara Code 70 range, from which to choose. This represents a marked change from the situation which existed 20 years ago.

In Conclusion.

Summarising my present preferences for track laying —

1) Solid open top framework of 2" x 1" timber on edge.
2) Track supported by ½" Pyneboard on top of which is ½" Caneite and finally 1/8" cork sheet.
3) Peco Streamline Code 100 nickel silver track (woodgrained sleepers) with Shinohara No. 6 Code 100 nickel silver turnouts.
4) Ballasting using the rubber adhesive method of Clive Huggan, with Erg granulated cork ballast.

I would stress that these are only my personal preferences based on what I have tried over the last 20 years. The photographs accompanying this article show most of the types of track that make up my layout.

All photographs by Alan Templeman.

FURTHER THOUGHTS ON EARLY AUSTRALIAN RAILWAY MODELLING

by "O"ldie.

After reading the article "Early Australian Railway Modelling" by Ted Ward (A.M.R.M. March/April 1977 p. 41) the old grey cells in my brain began to tick over, and my thoughts went back to the days a little earlier than those remembered by Ted Ward. In the 1920's and 1930's "O" gauge was the small gauge and quite a few people had to build their own models as incomes were not as high as in recent times. Those who wished to model Australian prototype had no choice — it was scratch built or nothing as the models commercially available were of overseas manufacture and prototype.

In Days of Old.

Those who growl at the present day manufacturers of what may be called toy trains (and the gap between toy and scale has narrowed greatly in recent years) for not making the prototypes they want, or not making a sufficiently accurate model in H0 or 00 do not realise how well off they are. Some expect super detailed scale models for toy train prices. In the old days model makers made fine models in "0" gauge from tin cans (the old kerosene tin was good because it provided flat sheets of metal), California chocolate boxes, cigar boxes, and that handiest of all materials Bristol board. This was quite a feat if you had seen the high quality of some of the models produced. Most models built were of British prototype because those wishing to model Australian and prepared to scratch build still had the problem of obtaining drawings.

In those days Australian railways did not release drawings of their rolling stock and locos. N.S.W.R. were the first to sell drawings and it was quite a while before Victorian Railways followed their example. Those fellows who whinge these days about how various items cannot be obtained should have been born 40 or 50 years earlier. Track was made from 1/8" brass rod for rail soldered to sleepers made from 16 G brass. Brass scrap was scrounged from many places. A time can be remembered when an acquaintance arrived with some brass nameplates off some stuff from Germany which his company had replaced and did not require any more. Oh, what a windfall. It was really hard brass and we thought that the Germans had found a way to incorporate steel into brass, but it was used.

Another time a bunch of us got together and sent overseas for some sheet tantalum which we intended to use in making trickle chargers for our batteries. Well, when it arrived in a nice flat piece we were overjoyed, until we began to cut it up for the guys who had contributed towards it. It was so tough we could not cut it. We approached some metal firms to have it cut up but were informed that there was not a cutter in Sydney that would cut it. I do not remember what became of it. Such was life.

Prices.

It is interesting to recall the prices of some of the "0" gauge models available in those days. Leeds Model Company 0-4-0 T at 45/-, 4-4-0 T at 50/-, Hornby M0 Passenger Set (Loco, tender, open truck, brake van, rails) for 5/6. For you chaps who do not remember £sd that is 55 cents. A Hornby No. 2 Special Passenger Set (any of the Hornby Special No. 2 locos, 2 Pullman carriages plus rails) for 65/-, Bassett-Lowke Royal Scot £3-18-0 post free, LMS Midland Compound 45/-, LNER A2 Pacific £4-4-0, German Marklin "0" gauge 4-6-2 express loco with detail as good as any model of today £6-0-0, German 4-6-0 £4-10-0, French ETAT 4-8-2 £7-10-0 (what would be today's collectors prices for these items?)

In the rolling stock line there were Bonds super detail carriages of many types for 38/6 (postage 9 pence), Hornby special Pullman carriages 13/-, Bonds super detail wagons 16/6, Hornby wagons from 1/4.

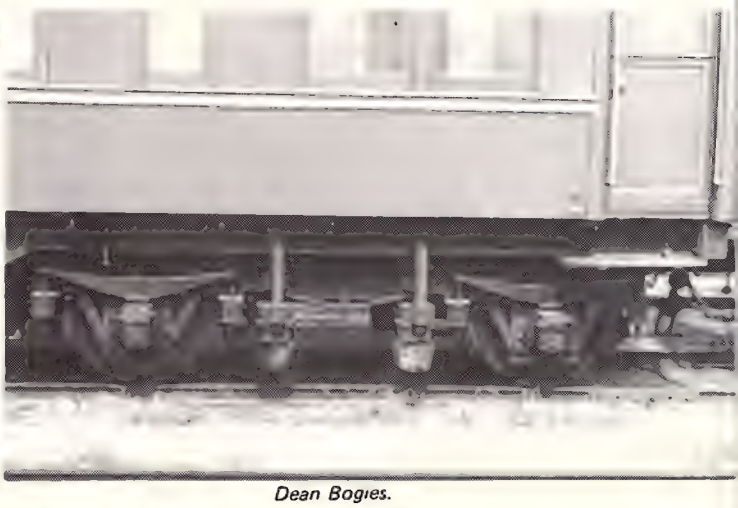
Bonds would make to order almost any scale model loco for £20 (today they would cost between £450 and £600). Bassett-Lowke, Leeds Model Company, Mills and Bonds were looked on as scale modellers and lucky was the chap who had some of their locos. Hornby, Ives, American Flyer (the "S" gauge pioneers)

Continued on page 42.

PROTOTYPE PLAN

N.S.W.R. 'ACM' Composite and Sleeping Coach

The composite sitting and sleeping car principle was applied to those items of rolling stock which were required to provide through services to branch line destinations when the patronage offered did not justify the use of full sleeping and sitting vehicles. One type,



Dean Bogies.

N.S.W.G.R. 'ACM' 655 complete with crownlights and Dean bogies, at 'grass' in Newcastle in 1975. Bob Gallagher photo.

ACM 799 modernised without crownlights and with modern 2AN bogies at Newcastle in 1975. Bob Gallagher photo.

the ACS car, was detailed in the September/ October 1976 issue of this magazine. Although these units handled much of the traffic in the composite and sleeping car category during the 1960s and early 1970s, they were assisted by two other types, of which the ACM — the subject of this article — was one.

The ACM cars were built on underframes reclaimed from BX type first class side door express cars and used certain body framing and running gear components from these vehicles. Outshopped from Eveleigh Carriage Workshops, Redfern, 10 ACM cars appeared in traffic between September 1932 and December 1936. Basically, they were replacements for the AJ type coaches which were converted to other types.

The road numbers of the ACM cars were the same as those BX units involved in the conversion programme: 655, 666, 730, 799, 1723, 1725, 1838, 1945, 2045 and 2047. In their rebuilt form, the units tared 30 tonnes while load rating was set at 31 tonnes.

The ACM cars originally possessed the common features of crown lights, side buffers, screw couplings and 2AF type "Dean" bogies. This last feature was applied to later cars carrying the BX code and, thus, were inherited by those vehicles in this series which were rebuilt to the ACM configuration. The 2AF bogie, which relied on four support points on the underframe in lieu of the conventional bolster assembly, was a legacy of the Great Western Railway in England. In addition to the BX cars, some other items of N.S.W. coaching stock were equipped with this type of running gear.

In later years, some ACM cars were altered and consequently lost some or all of the abovementioned features. The following notes were compiled from observations made by the author at Newcastle on 23 November 1974 and were originally published in the January 1977 issue of 'New South Wales Digest':

Car: ACM.655 — This vehicle was fitted with crown lights, side buffers, screw couplings and 2AF bogies.

Car: ACM.730 — The crown lights had been removed but the vehicle had retained the side buffers, screw couplings and 2AF bogies.

Car: ACM.799 — The crown lights had been removed and the side buffers replaced by plate buffers. The screw couplings had been retained. This vehicle was mounted on 2AN type bogies and appears to have been the only ACM car to have had its 2AF bogies replaced.

Car: ACM.1838 — The crown lights had been removed and the side buffers replaced by plate buffers. Automatic couplers had been fitted in lieu of the screw drawgear and the vehicle is believed to have been the only ACM car so equipped. This car had been fitted with external "Economy" designations instead of "Second" during 1970 and is thought to have been the only vehicle in the class to carry this wording. Despite its modernisation, ACM.1838 retained the 2AF bogies.

Car: ACM.1945 — Similar to ACM.730

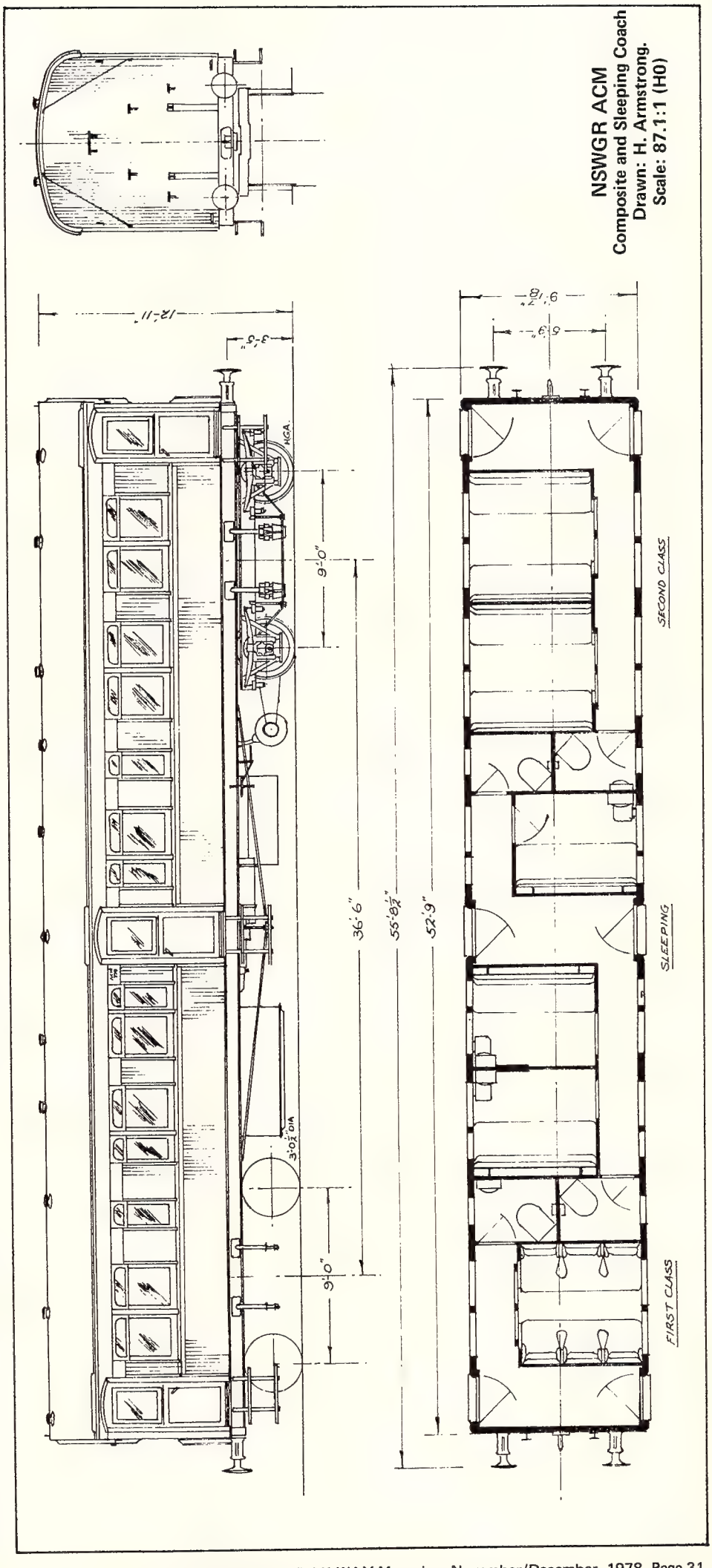
Car: ACM.2047 — Condition similar to cars 730 and 1945.

Of the remaining 4 cars, 666 and 1723 probably kept their original features until condemnation. Car 1725 appears to have survived in a similar condition while the ultimate status of ACM.2045 is not known.

The first withdrawals of the ACM cars occurred in March 1965 when 666 and 1723 were taken out of service. The other cars survived until the 1970s although they saw little use between the commencement of the decade and the reduction in intrastate sleeping car services in August 1974. They were condemned between November 1974 and August 1976.

The layout of the ACM carriage consisted of three self-contained units, each provided with an entrance door on each side of the vehicle. This design was a remnant of the transition stage between the side door "box" carriage and the side corridor vestibuled coach with

Continued on page 43.



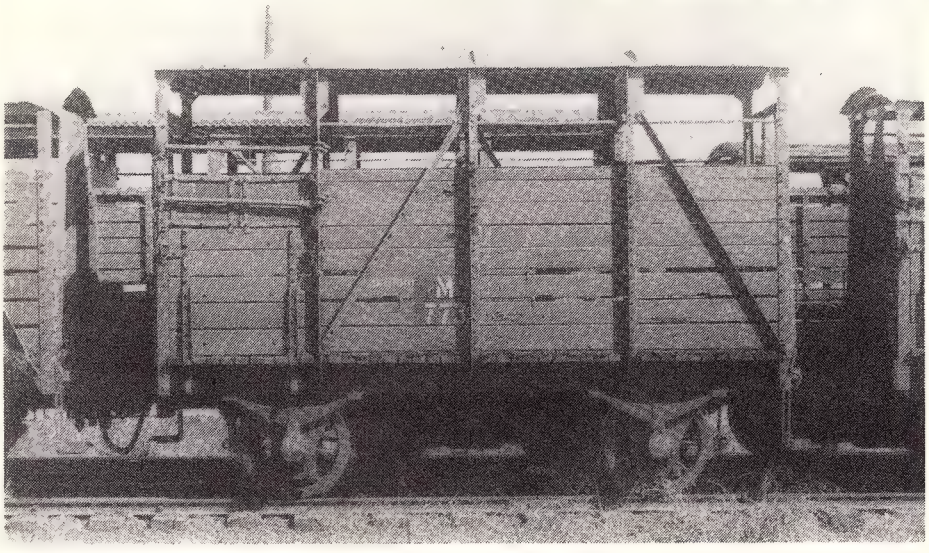
PROTOTYPE PLAN

V.R. ELEPHANT WAGON

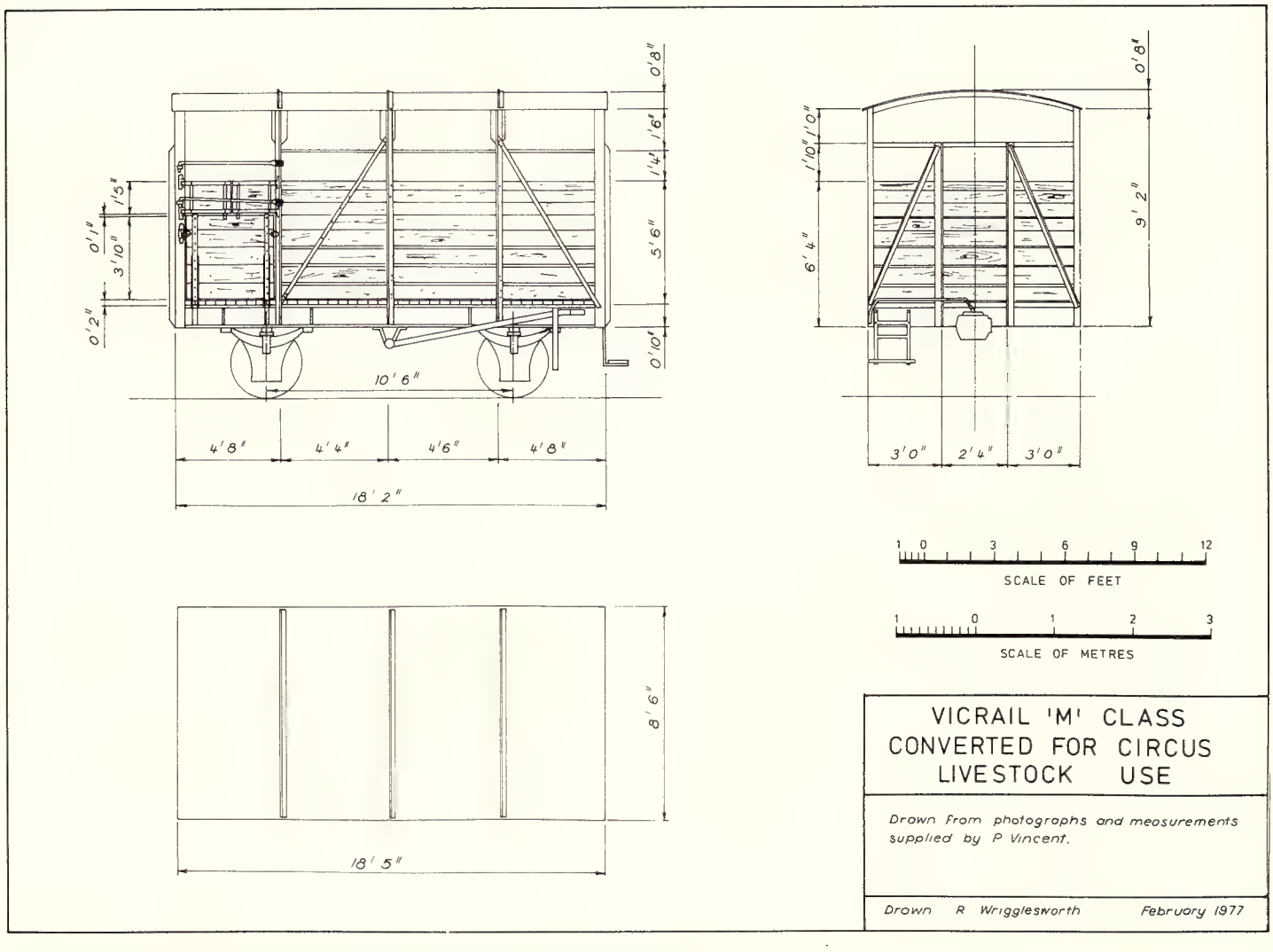
The VR's raised-roof M wagons are a group of M's which were modified in the early 1950's for use as 'elephant wagons'. They were used on the Wirth's circus train for carrying elephants and camels and, since the demise of the circus train, have been used for occasions where tall animals were to be carried. It seems, though, that the wagons originally modified with doors wide enough for elephants are no longer around. No existing M has doors wide for any but a severe malnutrition case.

These wagons all originated as rivetted-frame M's; that is, no M with a welded end frame was converted. Conversion was affected by removing the roof and extending the body side and end-frames, and replacing the roof.

End view of M679, snapped at Newport in 1975. Note the comparatively elaborate door securing arrangements down right-hand side. Elephants were notorious for their ability to unlock doors, pilfer from adjoining wagons and/or people.



Side view of M773, marshalled with standard M's at Wodonga in April 1975. Handbrake is on other side of wagon. Detail of handbrake is shown on drawing.
Lower part of door is hinged at floor-frame level, and provides ramp down to platform.



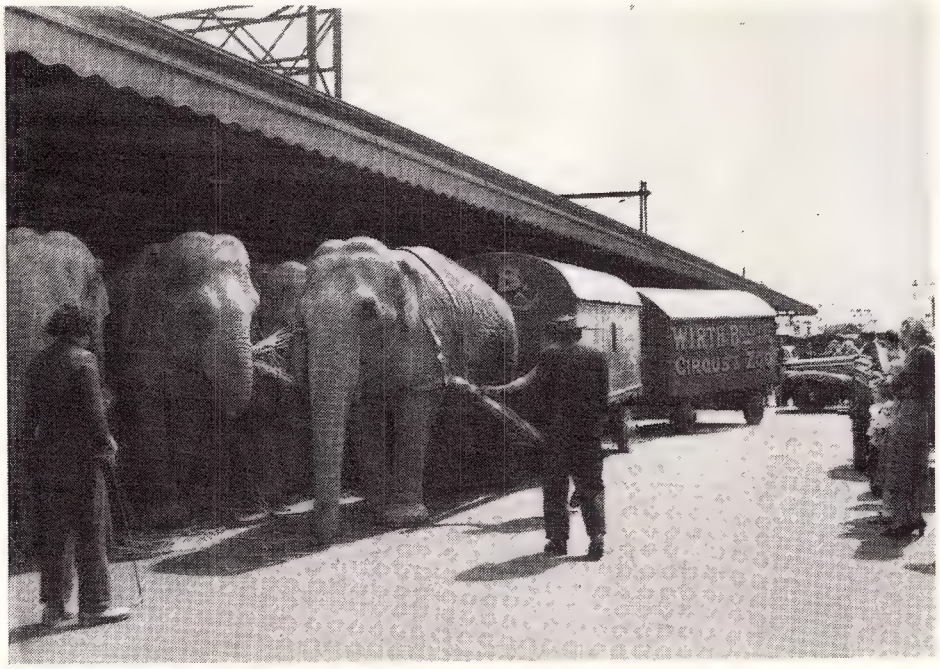
The roof was then at maximum loading gauge height. The following M's were thus converted: 143, 253, 516, 534, 537, 560, 588, 637, 678, 679, 773. At least three are known to still be in service. However, because of a chronic shortage of cattle wagons which, late in 1977 was causing worries to Victorian stock agents, it seems that many M's stored but not yet scrapped will be put back in revenue service.

Text compiled by Ian Weickhardt and Peter Vincent. Plan was prepared by Ron Wrigglesworth.

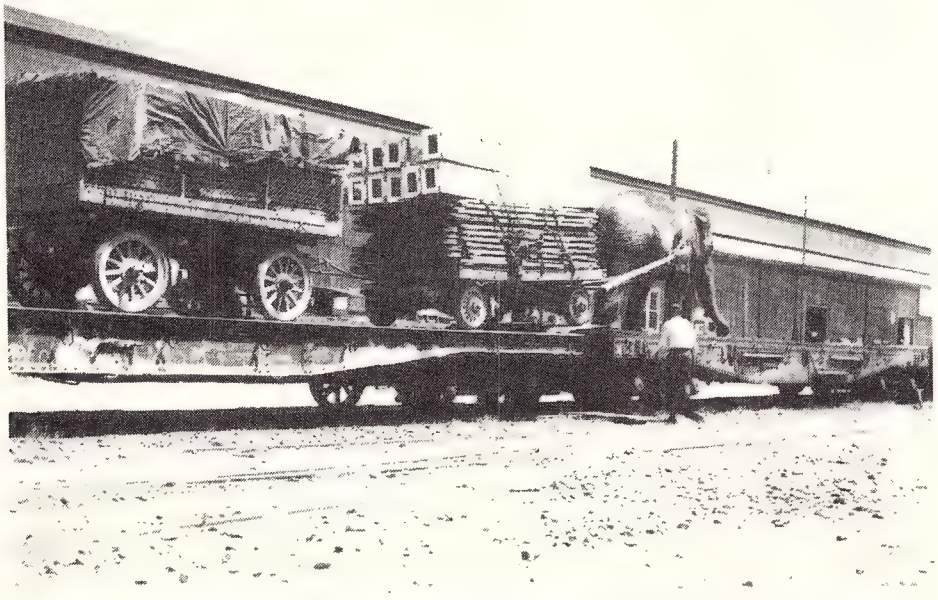
Close-up of extension framing on side of wagon. Original frame is riveted, but extension is welded.

VICTORIAN RAILWAYS CIRCUS TRAINS

by Ian Weickhardt



Arrival of elephants and some of the Wirth Bros Circus wagons at the Spencer Street of the 1950's.



Clear view of more Wirth's Circus wagons. Elephant pulls consist along flat cars as shown, is taken out of harness and steps down to ground. Flatcar on right is an SAR FB. Other is a VR Q.

The 'Circus Train' was a feature of VR operations for at least 70 years. One mention of early circus train movements, in a VR 'Newsletter' of the 1950's, describes the troubles encountered on a circus train movement in the 1890's. The loco was having a good deal of bother with the grades, and no wonder, because it was on a cross-country line through the Great Dividing Range. This long forgotten line, from Lancefield to Kilmore, must have been a boon for circus company schedules. It provided a link between the Bendigo and Wodonga lines, thus saving runs back down to Melbourne just because of consecutive visits to towns on different main lines. On that particular run, one of the clowns suggested that the elephants be used to help the loco. Well, it wasn't such a comic suggestion, as the elephants were regularly used for heavy haulage involving circus equipment. The photos demonstrate this kind of activity in the 1950's.

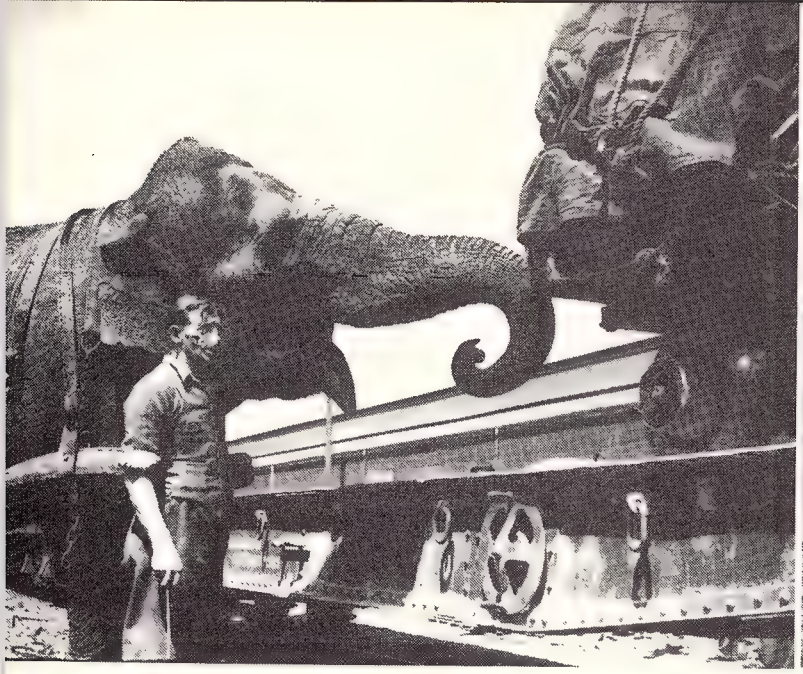
By the mid-60's circus trains had faded from the scene. For most of their career, therefore, the haulage was by steam locomotives.

Typical operations in the 1950's

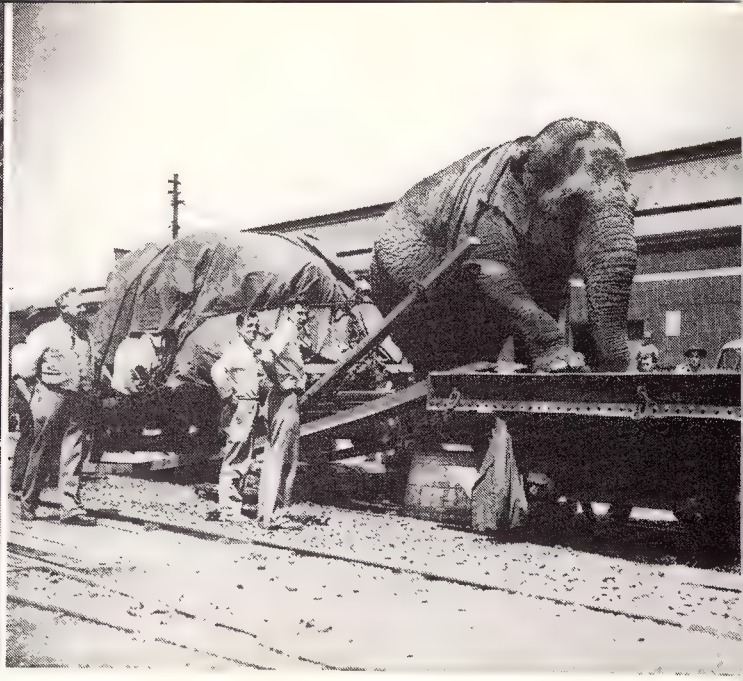
In 1956, the VR saw their part as provision of the special train on which the entire Wirth's Circus organisation travelled, ate and slept. Much careful planning was done by VR Traffic Branch officers in working out schedules, and ensuring the punctual arrival at the various towns to be visited. After each show, the prompt loading of the train was vital in order to maintain the Wirth's schedule. Each act was loaded as soon as it was finished, and the train was able to get away within a few hours of the final act.

Seven elephants formed a most important part of the equipment. As well as starring in the circus ring, they were used for loading and unloading; to haul circus wagons between the train and the circus lot; help erect the 'Big Top'; and do a variety of jobs for which their great strength and sagacity made them especially suitable. One elephant is known to have pushed a 400-ton section of the train a short distance along level track.

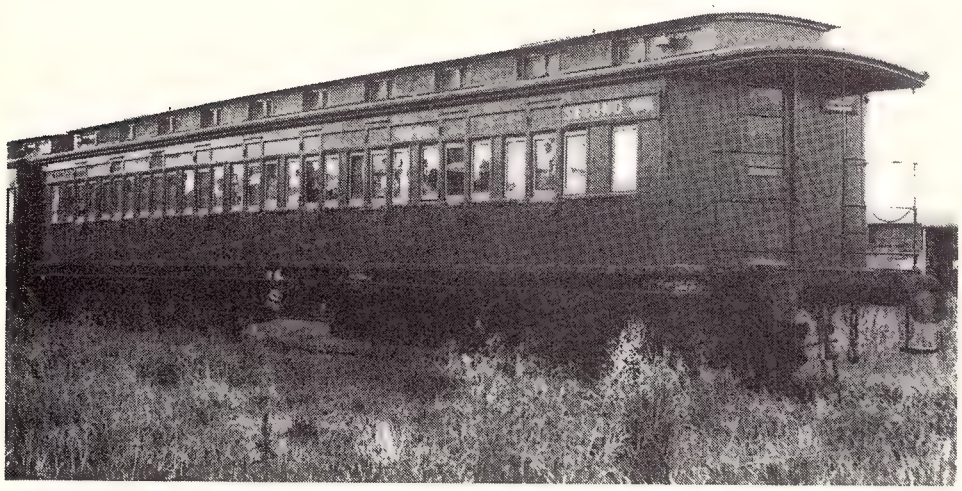
Some of the accompanying photos show loading operations at Spencer Street Station yard in Melbourne. The method consisted of placing a ramp up to the end flatcar, other ramps from car to car, and then having the elephants pull the circus wagons up the ramp and along the wagons, until one after another the flatcars were loaded. Not bad for 0-2-2-0's working up 1 in 6 grades! Unloading from the tops of the Q flat wagons was sometimes done by similar means to loading; at other times, it was possible to stop the train end-on to a plat-



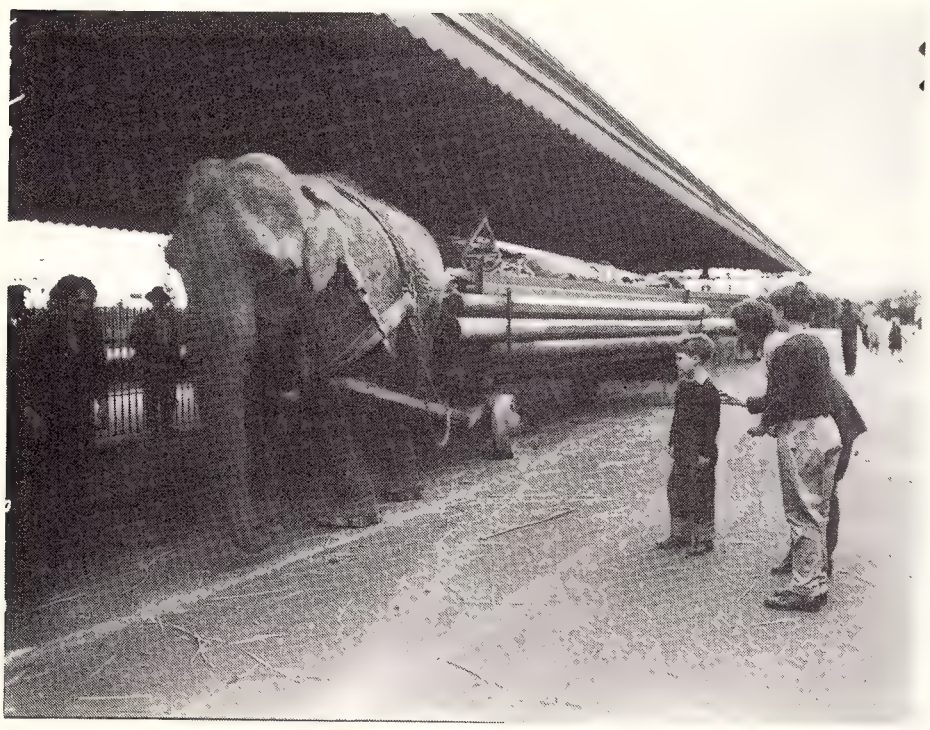
Who said you can't hand-shunt on your model layout? There's a prototype for it, at least in circus train operation.



Scene at Flinders Street Extension end of Spencer Street sidings. 0-2-2-0 with smoke deflectors working short train up 1 in 6 grade.



"Pioneer", which before its restoration for the 'Vintage Train' was one of the 'BLs' used on VR and SAR circus trains. Photo by Peter Vincent.



Arrival of a wagon load of the 'Big Top' poles.

form and unload onto that. This was once done at Ballarat in 1950, but the platform surface was soft after rain. The circus wagon wheels tended to dig in when pulled along it, bringing a risk of delays caused by bogged wagons. Solution? — couple 3 elephants to form a triple-header, and just keep pulling. Unfortunately, by halfway through the unloading process, the platform surface looked like ploughed paddocks. The Station Master happened along at the right (wrong?) time, and said things that made the elephants blush.

Strong as the elephants are, they also have their weaknesses. They love stolen food (as SAR crews found, too) and are born thieves. They have been known to pluck and eat leaves from trees, but refuse leaves from the same trees if offered to them. Also, they have been seen eagerly vacuum-cleaning the bottoms of GY wheat trucks standing on tracks adjacent to the Circus Train. But one of the most remarkable sights must have been on the Geelong-Ballarat line twenty seven years ago when an A2 and a D3 were hustling the circus train along towards Ballarat. As the train sped into the distance there could be seen an array of elephant trunks waving out of the sides of the M wagons. The observers of this exquisite performance never thought to see how many wrecked signals, telephone wires, footbridges, and severed elephant trunks were left littering the trackside.

The following story of elephant antics from the Commonwealth Railways of 1954 (ANR of today) illustrates other hazards of pachyderm cartage. The story was told in 'Railway Transportation' of January 1955.

'At Cook, SA, the largest settlement on the Nullabor Plain and divisional point of the CR's Trans Australia Railway, the railway routine is pretty well established and on most weeks it is usually possible to anticipate in advance the happenings of day or night.

There was one night recently when the norm was rudely shattered as the relief officer observed a lone elephant stepping it out between the tracks heading towards Pimba, 350 miles east. Shortly afterwards the elephant decided to return to the station, presumably seeking transport, and to assure the R.O. that he was not suffering from hallucinations. His arrival created some problems.

Neither the General Appendix or the Rule Book, those valuable aids to the good traffic man, deal specifically with the accommodation of elephants and it was left to local initiative.

Enquiries suggested that the elephant had been travelling in a circus train which had passed through some time previously. It had been taken out for exercise with the other animals and had apparently slipped away without being noticed.

The circus train, which was en route to Pimba, was advised of the whereabouts of the

stray and a trainer was sent back to Cook to mind the elephant until the arrival of the next eastbound freight train. Cook then returned to its customary normal existence.'

Stopover Arrangements

On long journeys, such as one Melbourne — Adelaide stint observed at Horsham, an evening stopover was made at some suitable intermediate town. The stopover at Horsham consisted of stabling the circus train in a suitable siding, loco setting back to depot, and then the feeding and settling of animals for the night. Most animals stayed in their cages, but the elephants were led out of their wagons and allowed to roam around an end of the station yard which had been fenced off with barricades and bales of hay. Under the watchful eye of the handlers, they would remain there until morning, and be marshalled back into their wagons. A loco — whatever was available and suitable — was coupled to the train, and off it went. In those days, many (if not most) of the circus hands led a pretty rugged life. They slept and travelled in the QR's, sharing them with tarpaulins and tent poles. It is not known whether they travelled that way by choice.

Typical Consists

The train, as it was in its last twnty or thirty years of operation, weighed 670 tons when loaded and ready to roll.

The rolling stock was usually as follows:

Car or Wagon	Function	Notes
M	Certain circus animals other than elephants	Standard 4-wheel cattle wagon. Still in service.
M (raised roof)	Elephant and camel accommodation	As above, but with roof raised to 8ft 3in. Still in service.
Q	Carriage of Wirth's circus wagons.	Early standard type of bogie gondola. Timber body. Still in service.
QR	Carriage of tents, poles and other items of circus plant.	Early stnadard type of bogie gondola. Timber body. Still in service.
5AB, 6AB	Sleeper cars for circus staff and 'talent'.	Early bogie passenger cars. Were fitted out as sleepers for circus train only.
AW	Accommodation for circus personnel.	Standard form of VR 8-wheel passenger car for country traffic. Still in service.
12BL, 13BL	Accommodation for circus personnel.	Both are 12-wheeled open end platform cars. Similar, but not identical: eg, different window spacings. Note that the BL class comprised several different kinds of bogied passenger vehicles. Their common features were 2nd class accommodation (B) and lavatories (L). 12BL became "Enterprise", 13BL became "Pioneer", after storage at Newport when circus train discontinued. Currently used for fan trips.
43C (or a CV)	Guards van	The C was an old-style bogie passenger-train guards van. C's looked like two Z vans with their birdcage ends joined. CV's were the same in function, but had vestibule ends. They look like the forerunners of CW's.
Locomotives		D3, A2, N, C, or whatever else was available from the depot supplying motive power for that leg of the trip.

Compiled from information supplied by the VR, Des Jowett and Phil Philipson. Photos by VR unless otherwise acknowledged.

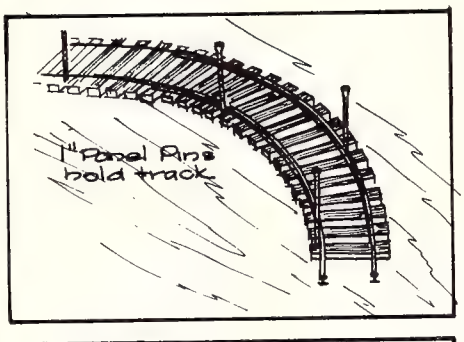
LAYING 'N' SCALE TRACK BED

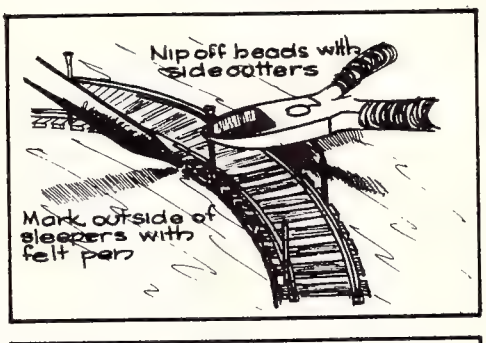
By Terry Burton

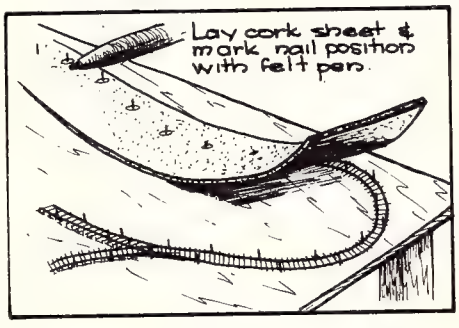
Newcomers to the art of model railroading, like myself, are at times a little dismayed at the way our counterparts overseas are pampered by the bweildering array of accessories and aids available to them, particularly our American cousins.

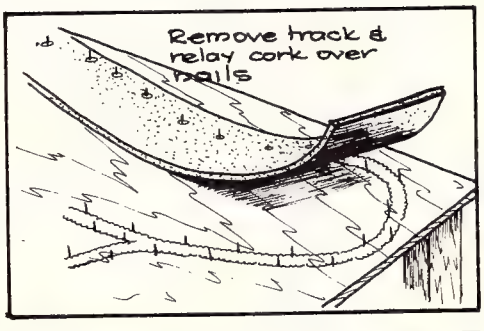
One such simple item not available here is cork roadbed which comes precut and chamfered. You simply split it down the middle, flip one half over and there is your curvable prechamfered roadbed.

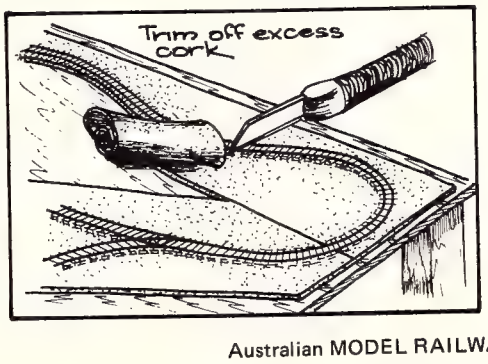
Now it may be pointed out at this stage by the experienced that all you have to do is select your correct width cork roadbed and cut it down the middle and you can curve to suit your track plan. However, if you are an inexperienced 'N' scaler like myself you will probably find this method rather troublesome, particularly with the sharper curves of N. I had all sorts of trouble getting an even roadbed. The method I use, whilst a little wasteful, results in a perfect roadbed to suit any radius or combination of radii.











Step 1. Lay your section of track on the baseboard to the desired location and hold in position with 1" nails between the sleepers and against the rail; use only enough to keep the track in position.

2. Mark the sleepers each side of the rails with a felt tip pen; these marks will be needed later. Using side cutters snip the heads off the rails. Caution, the sharp edges left are an advantage but a definite disadvantage if you are careless.

3. Now lay the cork sheet down on the track and push through the cut-off rails (careful of those sharp points). Using our felt tip pen again mark a circle around the protroducing rails; this will be a guide for the reset step.

4. Lift the cork and track off the baseboard and replace the cork sheet using the circles as a guide to rail locations. Relay track using the marks on the sleepers as a guide; trim cork to suit.

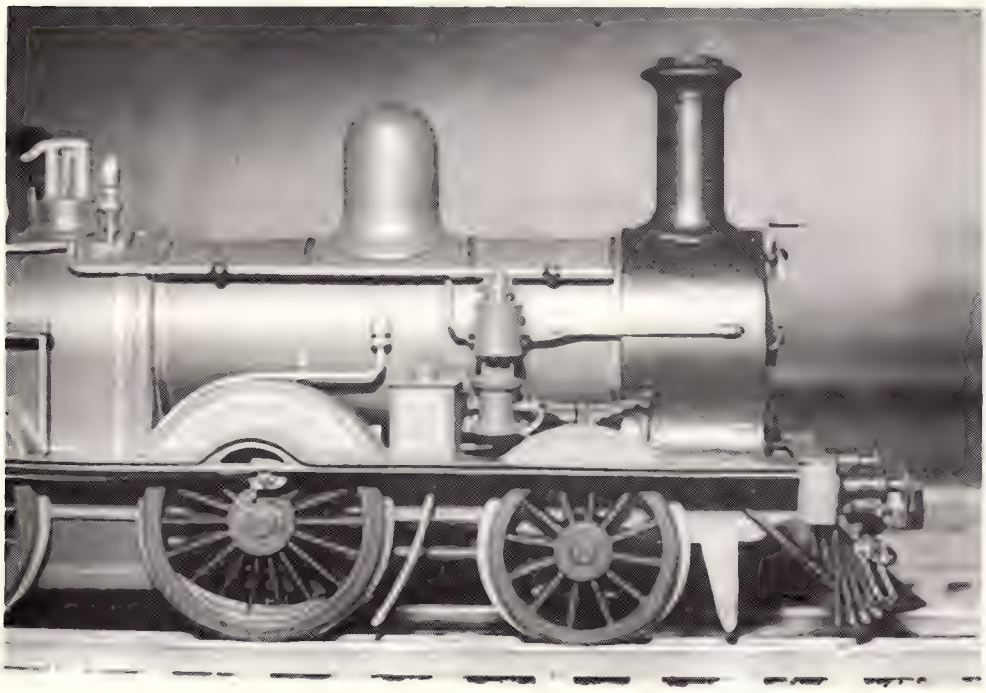
The advantage of this method is a perfectly flat roadbed which is not under any stress, such as curving straight sections of cork. The roadbed width can be varied if needed by using the track in its permanent position as a guide.

Main disadvantage is the waste as compared with using straight cork strips, but if you shop around, rolls of cork from motor parts outlets such as Repco will offset this.

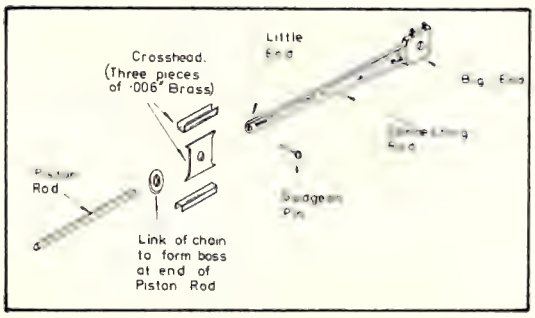
VICTORIAN RAILWAYS ENGINE No. 100

Frank Kelly describes the construction of valve gear on model locomotives.

Victorian Railways locomotive No. 100 hauls a period train over Malmsbury Viaduct on the Victorian Model Railway Society layout. The viaduct was built by Robert Dunn. Photo: Frank Kelly.



Close up view of the front end of No. 100. Photo: Frank Kelly.



Locomotive No. 100 was built at the Victorian RAilways Workshops, Williamstown. It being the first locomotive constructed by the Victorian Railways, it was a 'one off' job. Recent research suggests that it was built from parts of scrapped Geelong Railway Co. locomotives. No engineer in his right mind would curve the tender footplate up and above the 4' tender wheels if he could use 3'6" wheels and a straight footplate. The Geelong locomotives had 4' pony wheels. No. 100 was regarded as a pet both by running staff and Head Office alike, and this is why it lasted so long. It was rebuilt, as the author's model shows, in the early years of this present century. It was classed "E" in 1886 but became unclassed in 1888 when the letter "E" was given to the Kitson designed 2-4-2 suburban tank locos.

A few hints on valve gear.

The photograph of a "V" class compound accompanying the "V" class article in the September/October 1978 AMRM shows the coupling and connecting rods. The coupling rod is made out of a piece of code 65 rail, the bottom flange being filed down to look like bull head rail. A trick in making valve gear look right is in the decoration of the crank bearings to make them look like the particular prototype being modelled. To simulate the round bearing with the oil cup on top, two correct size links out of a small chain are soldered, one each side of the coupling rod. Note that a flat must be filed on the rod to take these links. The oil cap is a blob of solder carved to shape with a knife; the 'outside' link is filed flat and left just proud of the rod. The 'inside' link is left as it is, and it gives clearance between rod and driving wheel.

Separate links out of a piece of small chain are very handy in model making. The writer has a collection of chains of various sizes and on more than one occasion has been accused by his wife of stealing from the jewel box in the bedroom.

A flat coupling rod is quite simple to make and does not need a description here.

Tapered connecting rods

To make a tapered fluted connecting rod a piece of code 100 rail is used; note that the connecting rod is normally heavier than the coupling rod. Again, the bottom flange is filed down to give bull head rail appearance. Starting at the gudgeon pin, or little end, the rail is cut almost down its full length with a piercing (jewellers) saw. It still won't have enough taper at the little end, so the web of the rail must be filed down a little more. The two halves of the rail are now pulled and held firmly together and soldered from the back, along the taper. The front can then be cleaned up with scrapers.

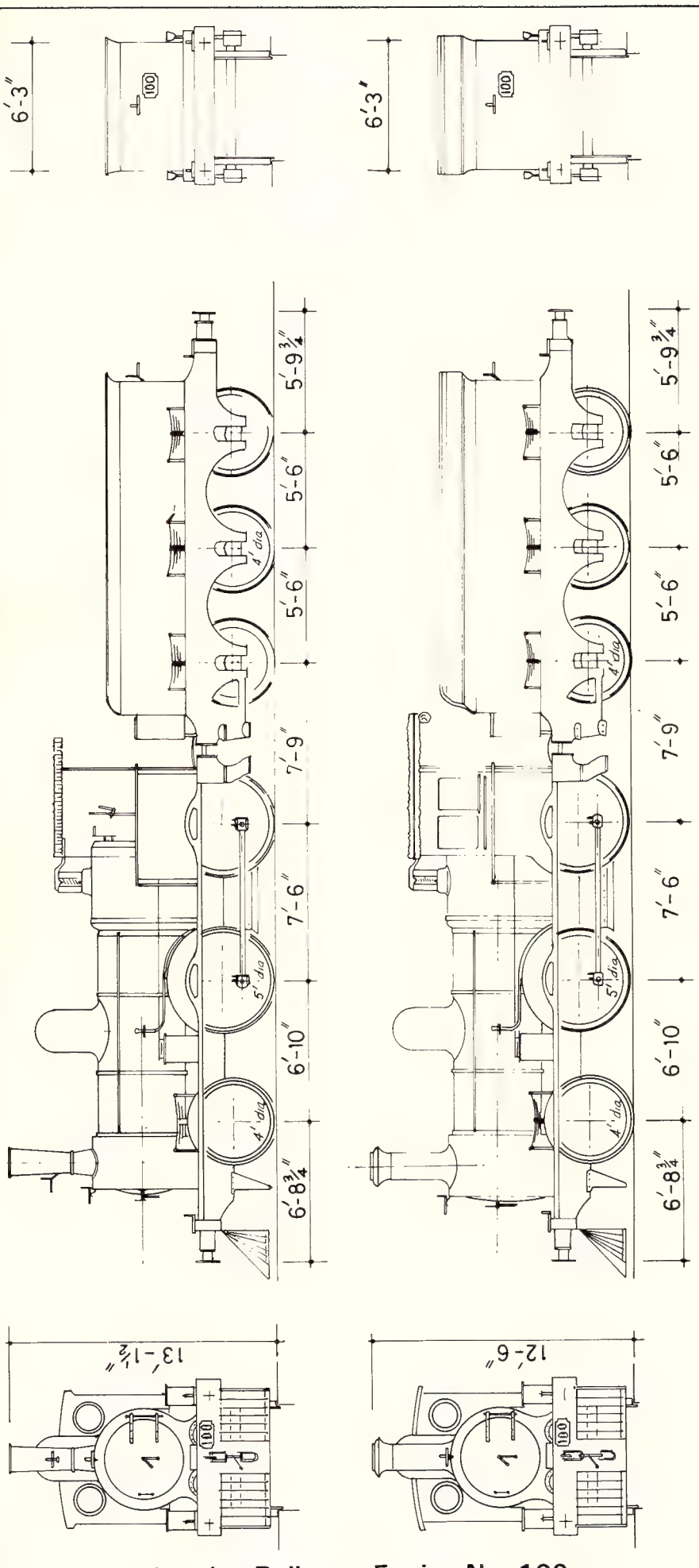
We can now decorate the big end as per the prototype, using pieces of brass for the big end bearings. Any cotters or wedges can be made out of copper wire and soldered into saw cuts at the back of the bearing.

After making the crosshead the writer usually solders the gudgeon pin to the back of the connecting rod, thereby making the piston rod, crosshead and connecting rod one assembly.

Crossheads.

The crosshead is made out of three pieces of .006 shim brass as in the line drawing. It is not necessary to recess the connecting rod inside the crosshead, as per prototype, as the back cannot be seen in a small model. The piston rod is a piece of wire of correct scale diameter. Another link from a small chain forms the boss where the piston rod joins the crosshead.

A little extra work on the motion of a model locomotive is well worth it, as the motion is the eye-catching part of a model.



Victorian Railways Engine No. 100
Drawn: Frank Kelly Traced: Ray Love
Scale: 87.1:1 (HO) 3.5mm; 1ft.

AMRM NEWS

Compiled by Bob Gallagher and AMRM Staff.

Last issue will probably go down on record as our most critical, and some readers have taken time to chastise us for straying from our given (???) task. But was it a critical issue? Trying to remain unbiased it is difficult to see where the comments differed from any other issue. Sure, Allan Brown, in his Comment, posed a question that many modellers have been through and no doubt many more have to face. In Mailbag a few readers have at last put into print subjects that have been restricted to club rooms for many years. Despite claims AMRM did not plan a full frontal attack on any firm or organisation, it being pure coincidence that all were in hand, prepared for the same issue. From comment at the Sydney model railway exhibition modellers were divided on their viewpoint. "About time someone spoke out" and "Unbalanced criticism" were but a few of the comments made to AMRM staff.

We at AMRM are pleased to see modellers at last take an interest in some aspects of the hobby in Australia. All involved in the hobby can only benefit from truthful comment.

One comment that is hard to let go unchallenged is one that the Editor's comment should be one of balance. It is an interesting point to debate but if all editorials were balanced they would be the last item read in a magazine. Scanning through most model railway magazines one can see a direct purpose in most editorials, that being one of attempting to inspire the reader. For the writer of this column a good tight, striking editorial has the effect of goading one to make the effort. Why should we Australians have a boring, tired, uninspiring editorial to read each issue.

Please Read the Text

Once again we must ask readers to read fully the text of any point they are going to comment upon in written form. Last issue was a prime example where some readers became so incensed at the first part of a letter/comment that they reeled off a lengthy letter of protest that did not really cover the full subject under discussion. Readers' comments are welcomé but it is preferable that they be of the subject under discussion, not a half baked idea of what the reader thought was under discussion.

Brass Locomotives

As discussed earlier there was some comment last issue on brass locomotives, which does make one stop and think of the purpose of a brass hand crafted model. One viewpoint is that the brass model is produced for the modeller who desires a higher accuracy in his model than the plastic/metal ready-to-run comercial models available. If this is the case are we Australian modellers expecting too much in detail accuracy from the brass models and should we expect them to run as good as a plastic ready-to-run model?

Are American prototype hand crafted brass models as accurate to prototypical detail as the Australian prototype units. Do the American prototype brass models run well straight out of the box? Maybe an American modeller or two could write in and describe the situation with the American scene. There is always a possibility that Australian modellers are not as bad off as they believe

The price of a brass loco has long been a point of contention and no doubt be discussed in such a vien until the demise, if ever, of the brass loco. There is however some methods that seem to artificially force up the true value of a brass engine. One such method is the 'shark' (for want of a more descriptive term) who invests heavily in a number of locomotives when they are released and then resells them over a period of time by the forced tender system, which is worked by pitting one interested party against another, usually by phone. The other method is the unshady character who steals, thieves or burgles the models and then resells them to unsuspecting modellers usually by the forced tender method. There is no room in the hobby for either of these characters in the model railway hobby.

Thieves at Work

Earlier in this column a mention was made of those who steal models for personal gain. Regrettably word of a major theft has reached the AMRM office from Adelaide where a large quantity of brass locomotives, including thier original boxes were removed from their rightful owner. All units are painted 'Clinker Grey' are lettered, numbered and fitted with light jewels, crewmen, etc. They are lettered for Union Pacific, Baltimore & Ohio, Nickle Plate Road, Chicago North Western and Union Pacific. If any reader becomes aware of the whereabouts of this large number (22) of locomotives they are requested to contact AMRM immediately or contact the police via the Burnside (SA) CID. At present theft of models is smalltime in Australia . . . Let's keep it that way.

Corrections

Last issue saw a few errors/omissions creep into

Continued on page 44.

CUSTOMISING A N.S.W.P.T.C. 44 CLASS

Graham Ball describes his method of converting the 44 class into its various series.

The NSW 44 class diesel electric locomotive is one of the two most numerous loco classes currently on the state's system, there being 100 of them issued into service.

They were manufactured by A.E. Goodwin Pty. Ltd., of Granville, Sydney from 1957 to 1968. As a result of an initial order of 10 in April, 1957 subsequent orders were to follow, namely 30 in November, 1957, 20 in August, 1959 and 40 in February, 1965. All were in service by January, 1968.

Various modifications occurred throughout the orderings but it is only in the last 40 that external differences can be noted. This includes the provision of illuminated number boxes on the B (rear) end, centre hump-tyre buffing plate and (in the last 20 units) the insertion of a closed panel immediately behind the A end cab windows.

The Lima model is of the intermediate series and, having three of them in my collection, I decided to convert them to represent one of each of the series.

To make one of the first series one must remove the B end number boxes, This was achieved with a sharp craft knife, fine files and conventional wet and dry sandpaper (used dry).

The buffing plates were next to be done and it is advisable to remove them from the model — they pull out. The centre hump was removed, once again with the craft knife and files, and a similarly shaped piece made from .040" styrene was inserted in the corresponding space at the bottom-centre of the buffing plate (See diagram).

All that was needed for the conversion on the last of the series was to insert two panels of .010" styrene over the grills immediately behind the driver's windows.

The bogie mounted couplers were removed from where their shafts join the bogie proper. Kadee 8's were fitted to the grey underframe after first packing to height with three layers of .040" styrene.

A certain amount of the loco's skirts immediately above the couplers had to be removed before the couplers could be installed. This was by trial and error.

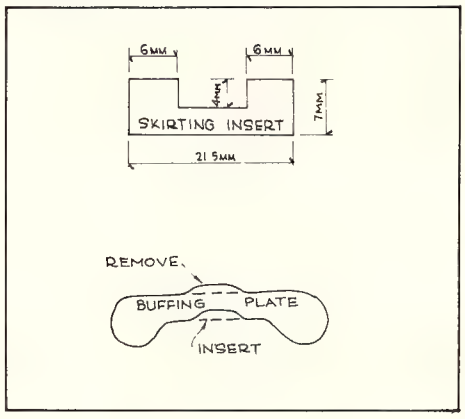
The open skirting below the couplers was filled in with .040" styrene to the shape as in the diagram. It will be noted, both in the diagram and the model photos, that there is a somewhat generous hole directly under the couplers. The reason for this is that by having the couplers body-mounted they have to be removed to allow access to the mechanism, etc. I have found that the Kadees need turning thru 45 degrees in this respect, hence the hole. This finishes the actual construction work on the model and brings us into the painting and numbering.

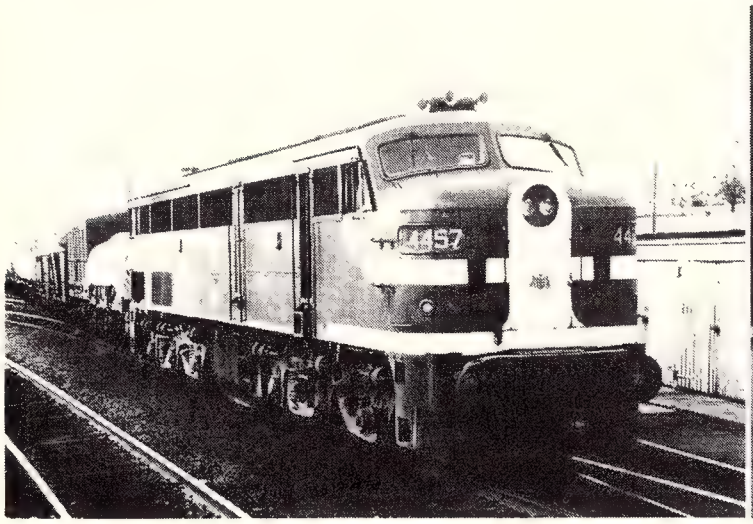
The removal of the 4469 from the sides is achieved by the use of an ink rubber — CAREFULLY! If you rub too hard you will remove the red from underneath the numbers also. If, perchance, you do rub too hard, it can be touched up whilst painting the B end forehead.

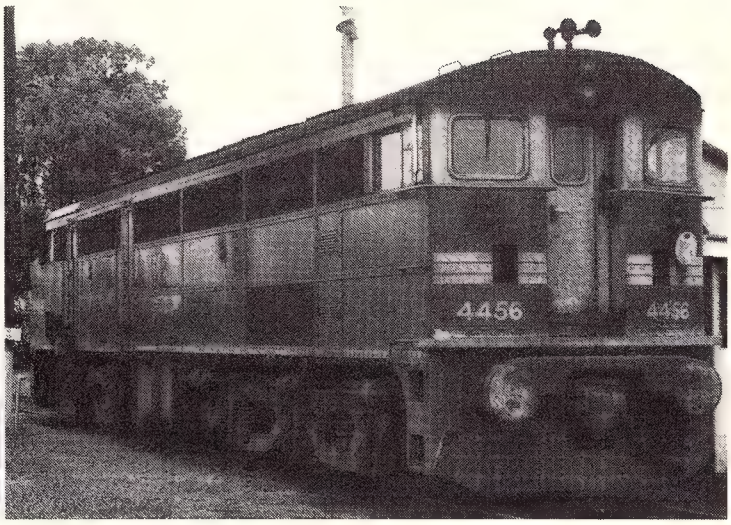
All of my models are from the first run that Lima did and have the low skirts; the latest batches (shorter skirts) are in a slightly darker Indian Red. The matching paint I used was Humbrol LMS Maroon and GWR Chocolate. First series needs a 50-50 mix, second series would be about 40% maroon — 60% chocolate, but try it first! When satisfied with the colour paint the B end forehead, any blemishes on the sides where the numbers were and, most importantly, the grey roof panels — they never were grey. If the yellow needs touching up I found the matching colour to be Humbrol Signal Yellow.

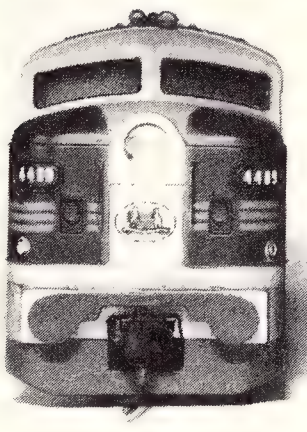
Numbering was done using the larger numerals from the Rail Transport Museum's sheet for the sides, the smaller yellow numbers for the B end (if applicable — and note their position) and either the old Protype sheet (still available) or the newer AMRI range for the A end number boxes. The clear plastic in these boxes has 4469 in raised numerals. They can be removed with the craft knife and the clear plastic painted black, then put on the small white numbers. When everything is to your liking give the whole model a coat of clear matt enamel.

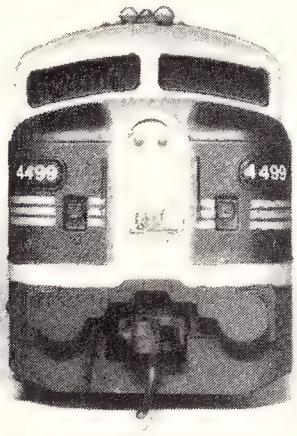
That's as far as I went and, until somebody shows me how to bring out the front cab windows, that's where I'll stay.

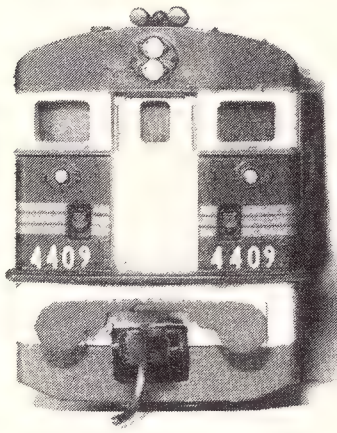


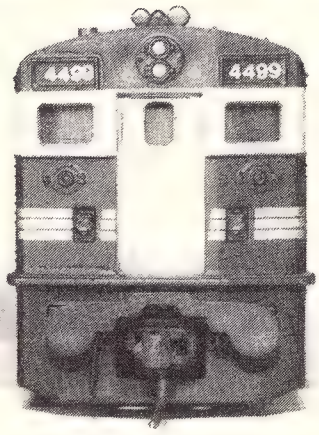












No. 1 end of first and third series.

No. 2 end of first and third series.

PROTOTYPE PLAN

N.S.W.R. MCV Bogie Box Van

NSWR 'MCV'. Photo by courtesy of NSWPTC.

These box cars appeared in traffic during the Second World War for the transport of military stores, principally aircraft parts. Today, the survivors exist only as Public Transport Commission service stock.

Build on underframes reclaimed from KKG pattern horseboxes, the MCV vans entered service between November 1942 and November 1943. For a reason not apparent to the author, the first van was immediately allocated to service stock as accident van L.780, leaving 35 units to become freight cars.

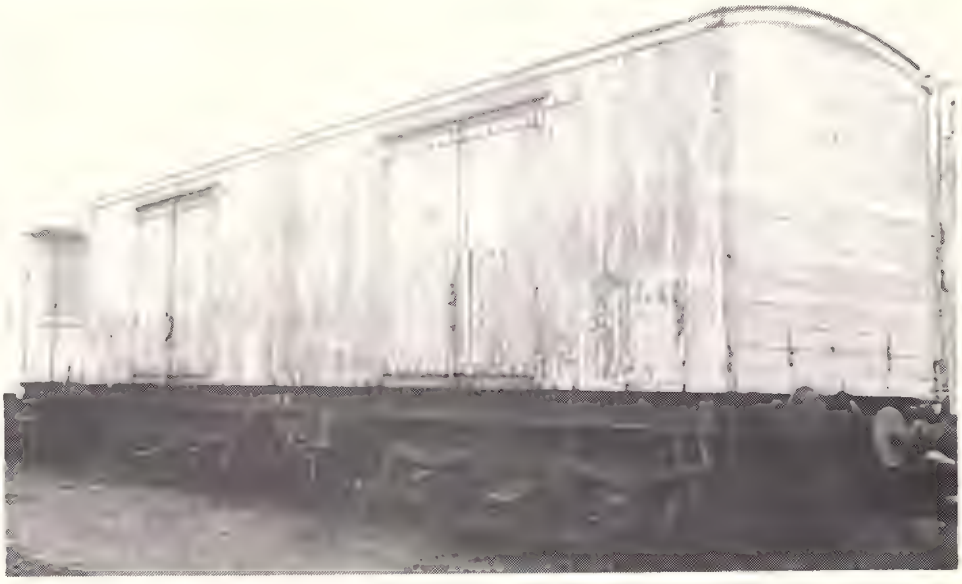
After the War, the MCV vans were employed as conventional stock, the first known withdrawals being cars 11310 and 12675, in April 1951. The remainder had been taken out of service by November 1963 (except for L.780, which survived as active service stock for almost 10 years longer: this van was written off the register in June 1973). The last freight car of the series known to have been operational was MCV.5434. A vehicle for which no condemnation date can, at present, be found is MCV.5157 but it was absent from the 1955 N.S.W.G.R. wagon inventory.

The MCV consisted of a timber body mounted on the reclaimed KKG underframe. The livery worn by vehicles of this class was the conventional dark grey of N.S.W.G.R. freight stock. Tare was rated at 19 tons and maximum permissable load was 12 tons. The internal layout of the van comprised two independent compartments, each with 860 cubic feet capacity.

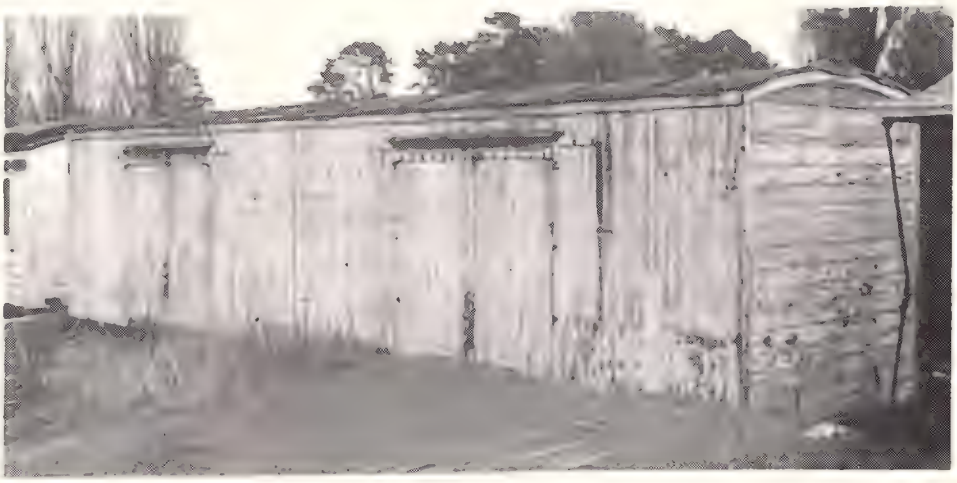
Considered by the N.S.W.G.R. as the bogie version of the CV van, for traffic purposes, the MCV unit was a "red diamond" express unit as were a number of other covered wagons, including MRC and MBC vans. The red diamond, displayed on each side of the vehicle above the wagon identification, indicated that the car could be run at express passenger speeds, if required. Principally, this was due to the retention of the passenger type bogies after conversion from the KKG design.

Road Numbers:

Service Stock (as new unit): L.780 (on under frame ex KKG.856)
Freight Cars: 5122 (554); 5140 (1795), 5157 (798); 5434 (1798); 5800 (702); 4866 (1792); 5891 (531); 6960 (1797); 7319 (556); 10510



L575, an ex MCV at Moss Vale N.S.W., now a Breakdown Emergency Van, is now painted white (with a little bit of weathering. Bob Gallagher photo.



(1794); 10811 (723); 10827 (566); 11081 (587); 11139 (572); 11265 (1793); 11310 (852); 11542 (917); 11821 (933); 11838 (746); 11980 (1790); 12324 (1791); 12344 (1799); 12675 (637); 12794 (763); 13872 (1796); 13887 (1800); 13975 (765); 15802 (595); 16760 (571); 17177 (793); 17443 (808); 17515 (878); 18404 (1801); 19166 (903); 19834 (873).

As MCV vans, these cars were numbered in the freight stock series. However, their original numbers (as KKG units), shown above in brackets, were part of the passenger stock roster.

Models:

The only known model of the MCV van which was commercially available, the Econ "HO" gauge kit, disappeared from the shelves a few years ago. This kit consisted of a set of epoxy parts for the bodywork of the vehicle.

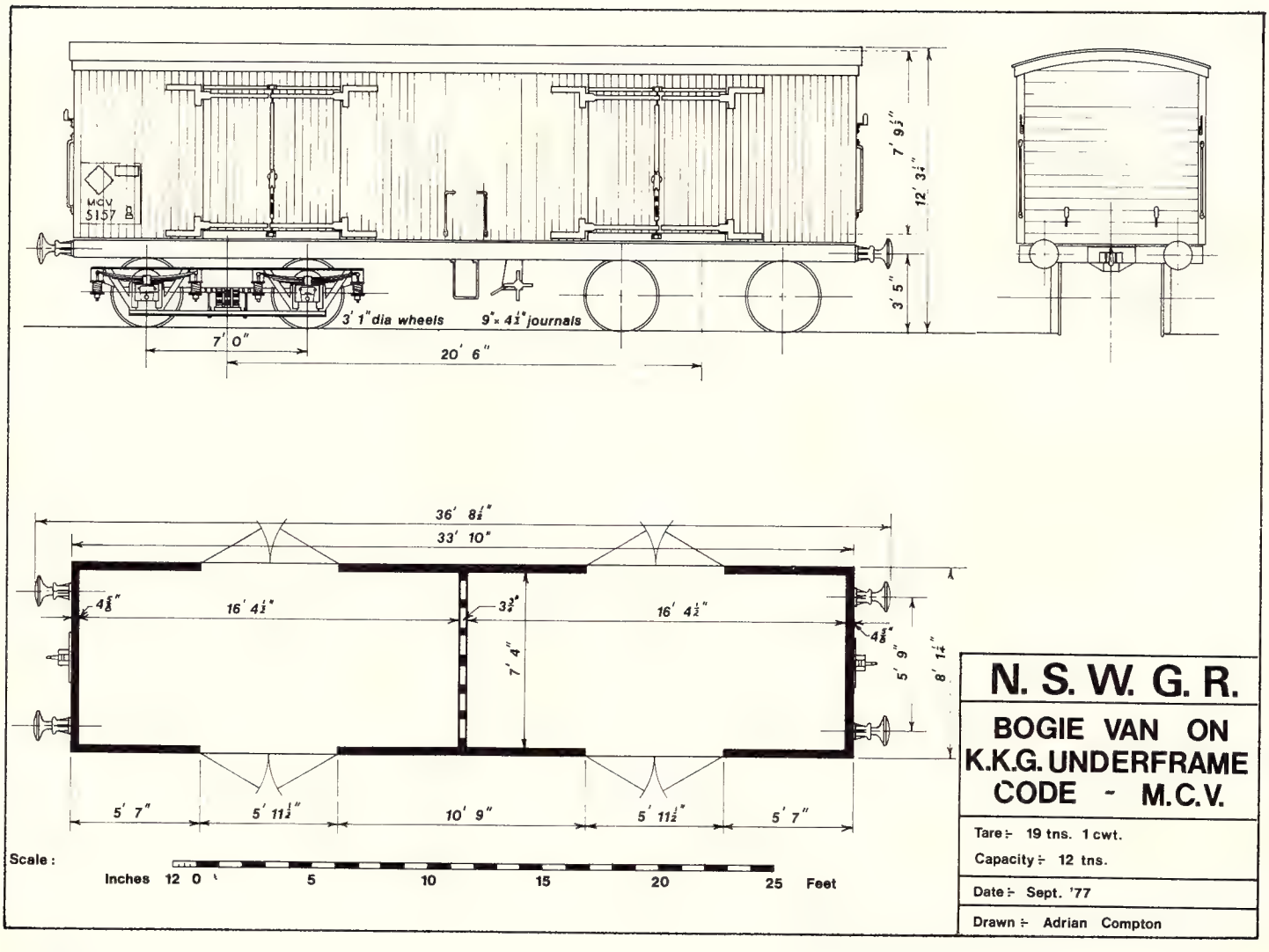
(Text researched and compiled by Paul Rogers)

References:

1. Carrying Capacity of Goods Wagons, Coal Hoppers, Horse Boxes and Motor Trucks dated July 1955.
2. Public Transport Commission records.
3. Author's notes.

Acknowledgement:

Mr John Forsyth, Archives Officer, Public Transport Commission of New South Wales.



MODELLING PROJECT

N.S.W.R. MCV Bogie Box Van

by Ron Cunningham

The MCV is an excellent vehicle to build as it offers something for both the beginner and the experienced modeller alike.

The beginner can easily construct a basic MCV (which is really only a box on bogies) using simple and readily available tools and materials.

For the more ambitious or experienced modeller there is the challenge of breaking up the plainness of the model by adding the many items of detail existing on the protype.

Whichever category you put yourself in the result will be an interesting and unusual addition to your rollingstock roster with many potential uses on any layout.

The Prodecure:

The basic method of construction is to laminate scribed Northeastern timber to an inner box fabricated from styrene sheet. Add roof (styrene), underframe (Northeastern wood shapes) and bogies and there you have it ready for detailing.

A Word About Materials:

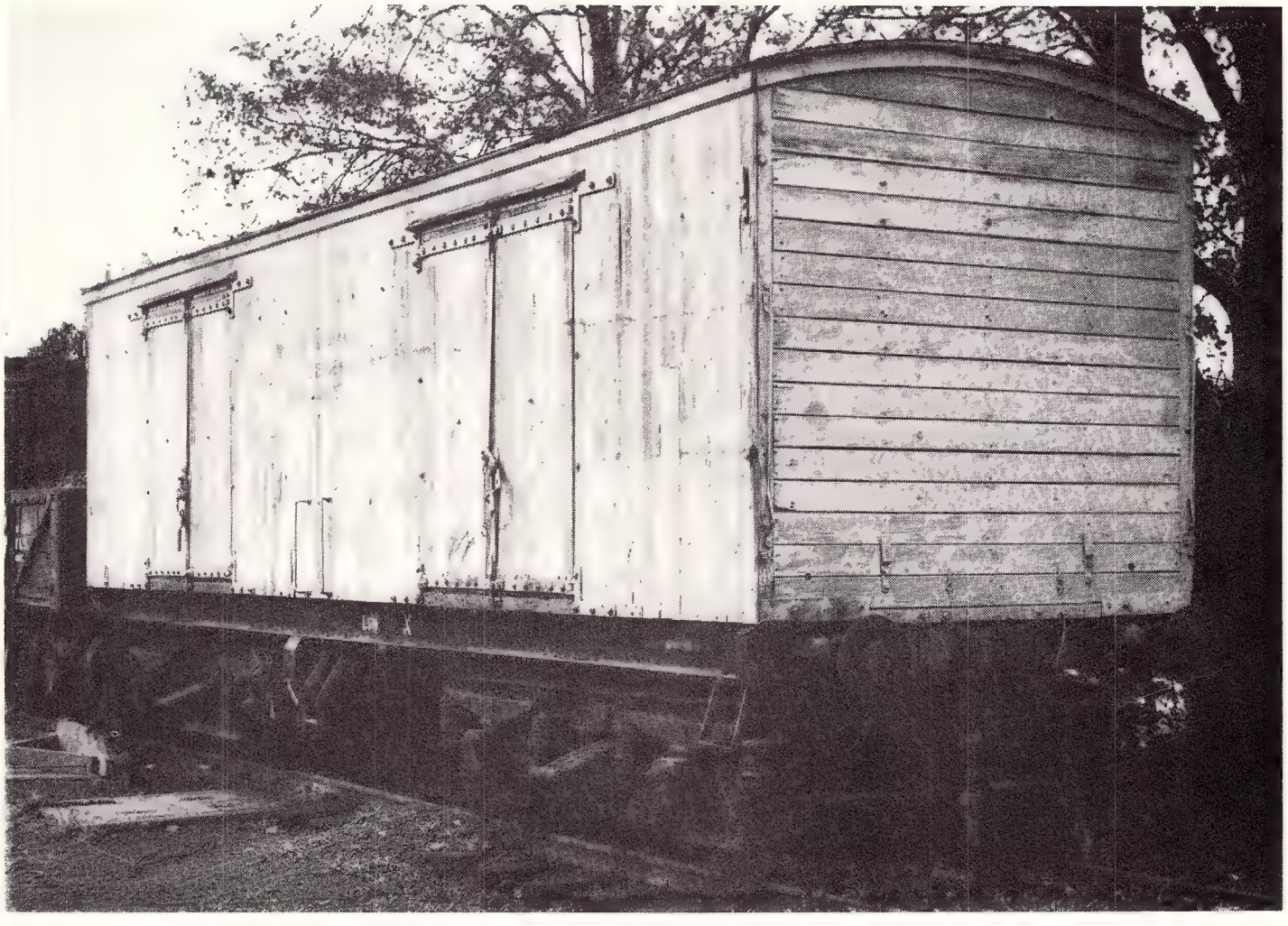
I do a fair amount of scratchbuilding of both rolling stock and structures and find three items make up about 95% of the materials required. These are: Northeastern timber in both scribed siding and to a lesser extent structural shapes; styrene sheet in the various thickness; corrugated iron sheet.

Styrene sheet is no problem and is available at most hobby shops. Corrugated iron is available from Gordon Duncan in Victoria by mail. This leaves the Northeastern timber and to my knowledge this is only available from Model Dockyard in Melbourne. Nothing is more annoying than to run short of a particular item in the middle of a project so I maintain reasonable stocks of the major items and anyway the Dockyards mail service is excellent. It has always puzzled me as to why Melbourne seems to have the best stocked hobby shops and yet New South Wales turns out the better scratchbuilders. Maybe they all shop by mail through the magazine.

Construction:

First construct the inner box from 60 thou styrene sheet. The dimensions of the box should be such that when the scribed wood sides and ends are laminated to the box the result is a vehicle body 33'10" long and 8'1¼" wide. The height should be a scale 7'6". The Northeastern scribed sheeting is HO 4" thick so the box dimensions should be 33'2" long by 7'5¼" wide. The height is the same at 7'6". Reinforce the box internally before adding the top and make sure that the sides and ends are square as this will produce a properly squared van body.

If you intend superdetailing the underbody then weights should be added before you add the box top. A rough guide to weighting vehicles for proper track stability and correct functioning of Kadee couplers is that the vehicle should weigh 1 oz for each inch of length. This vehicle then should weigh 4½oz approx. and will therefore require the addition of about 2oz



L587 (ex MCV) at Moss Vale in March 1966. Photograph by Howard Armstrong.

either glued inside the styrene box now or to the underbody later.

Once the styrene inner box is ready, the sides and ends can be laminated on. The sides are cut from Northeastern sheet with 3/64 scribings which give about a 4" board in HO. Cut out the door spaces. These will be replaced with new doors cut from sheet with 1/16 scribing representing 6" boards. On the prototype the doors are made from boards the same width as the rest of the sides but by using different sizes the doors are accentuated and the plainness of the sides is broken up.

When cutting the sides allow for 4" by 4" corner posts at each end.

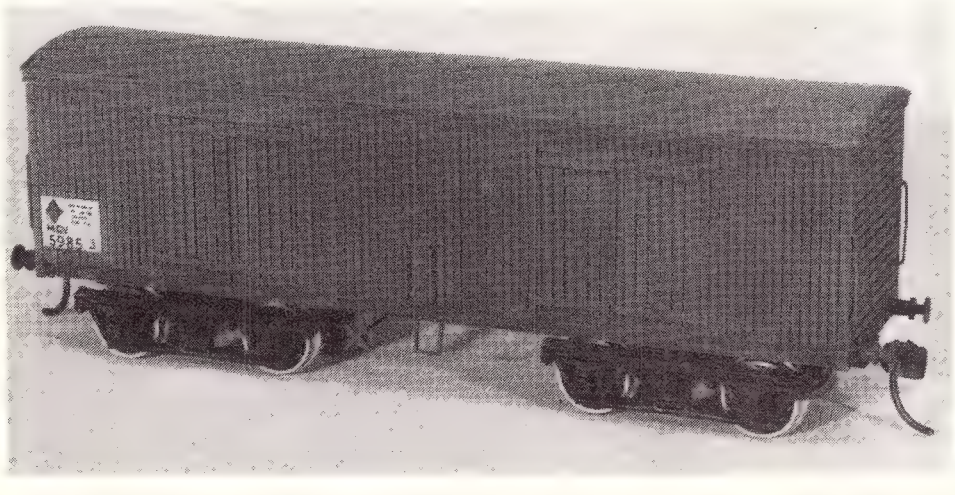
Don't forget the sills at the top and bottom of the doors. The bottom sill is cut from Northeastern sheetwood and is 4" high. The top sill is a piece of 20 thou styrene glued side on.

Cut the doors, one piece per opening and test fit all side components. (You can also chamfer slightly the tops of the door pieces as this will further emphasise them and break up the sides.)

With all parts now ready they can be glued to the styrene inner. Care should be taken here to prevent warping and lifting of the wood sides. I use Tarzans Grip making sure that an even coating is applied to both wood and styrene. Walthers Goo is excellent but hard to obtain and any of the 5 minute epoxy glues are okay. Glue all side components in place with the bottom of the wood sides flush with the base of the inner box.

The ends are the next item to attempt. These are again cut from Northeastern sheet wood with 1/16" (or 6") scribing. The main difficulty with the ends is to achieve the right curvature at the roof line. This can be done by tracing the curve on the plan and transferring it to the van ends or, if you intend building several MCV's or other vans then you could construct a master pattern from either wood or brass sheet as I did so that the correct shape can be reproduced simply and quickly at will by some quick work with a knife and file.

Once the ends are ready and have been test fitted they too can be glued in place.



The underframe:

I tend to model only what I can see on a model so the underframe I use is quite simple. It consists of a central longitudinal beam on which couplers and bogies are mounted, side beam sole bars made from Northeastern wood shapes and wood end beams.

Start by cutting the end beams from wood with dimensions 9" by 4" by 8'1¼" and superglue them flush with the van ends. Next cut the side beams from Northeastern 9" by 3" channel or 9" by 4½" beam and superglue them in place. The centre beam can be any size but a thickness of about 3/32" will produce the right height when the vehicle is mounted on its bogies. This can always be adjusted by filing or packing the bogie mounting so the thickness is not critical. 5 minute epoxy this centre beam in place as it may have to take some force when being drilled, filed etc for couplers and bogies.

Now turn to the roof to complete the basic shell. The roof is cut from 20 thou sheet styrene. I always cut a rectangle which is oversize in all dimensions and trim it after it is in place.

To give the roof some support a piece of stripwood is glued to the top of the styrene inner so that it is flush with the centre of the ends at their highest point of the curvature. This will support the curved styrene roof along its centre.

When this is done coat this support with 5 minute epoxy and attach the styrene roof. Hold in position until dry and then follow the same procedure with the sides. It helps to paint the styrene sheet roof with plastic weld cement or some other styrene cement as this softens the styrene and makes it easier to curve. The styrene regains its strength as the cement dries.

Roof:

When the roof is dry add the side capping boards which sit tucket up under the roof overhang. These can be made from stripwood

or styrene. I used stripwood and achieved the curved effect on the ends by making a series of small cuts in the stripwood and then gradually curved the wood to fit under the roof. It's a bit fiddly but quite straight forward.

Next trim and file the roof so that it protrudes about a scale 1 inch over the sides and ends.

The basic shell is now complete. Add bogies (PMH fitted with Bergs wheels), standard Kadees and buffers (Bergs brand available from most hobby stores, chuck them in a motor tool or drill and file the buffer plate back to 15" diameter. Cut the shanks at a point just before the rear mounting plate and file to produce a buffer 18" long. I dip them in Hobby Black to weather them then superglue them in place).

Painting

From the builders photograph it appears the vehicles may have been painted a dark green originally but they probably ended up standard black fairly quickly. (Comments clarifying this would be greatly appreciated from readers.) I ended up weathering mine with a mixture of black, brown and white which gave an off grey which is quite effective. Black underframe completes the painting and your MCV is ready to roll, OR if you prefer a little more detail — read on.

Detailing:

Door hinges are the first item of detail which are essential to make the doors stand out. The hinges on the prototype are fabricated from flat steel bolted to each board on the door and sides it rests on. The hinges complete with bolt detail can easily be simulated by using Slaters rivet sheet. My philosophy of scratchbuilding is that if it looks good and saves time then I will buy it so I am always investigating new scratchbuilding aids. Slaters rivet sheet is one I discovered only recently. I obtained mine through the Sans Souci Sports store and found it to be idea. It consists of styrene sheet about 10 thou thick and has a range of rivet sizes and spacings on each sheet. Choose the spacing which lines up with the plank width on the doors and cut narrow strips not much wider than the actual rivets. These are then superglued to the doors and sides in the shape of the hinges as shown in the accompanying plan and photographs. The hinges make a world of difference to the appearance of the vehicle and are well worth the effort.

The door locking mechanism is a thin piece of styrene strip glued in the centre of the doors. Cut a small gap in the centre of the hinges and extend the locking mechanism the full height of the door by gluing a small piece of wire or slaters rod to each end. This rod should pass through a metal loop to lock the door but I have not put this on mine. It could be fashioned from a small piece of brass shim if wanted but I would put this in the super-superdetailing category.

The door handles can also be fashioned from a piece of rod and some thin brass or styrene sheet.

The grab irons are made from wire and glued into small holes drilled in the sides and ends. (The May/June 76 issue contains an article on making grab irons.)

The shunters steps I made from a piece of brass ladder stock but styrene or brass sheet could also be used.

The brake handles are workshop 5 castings carefully filed down to a more prototype thickness and glued to a piece of brass shim superglued to the side beams. A piece of brass rod joining the two brake wheels represents all of the underbody detail I intend adding at this stage although a Protype air reservoir is on its way.

Perhaps the final detail to be added is the lantern brackets. These are probably best fashioned from brass shim but I am still in the process of installing these and they may not appear in time for photographing. (Sorry about that ed.)

Lettering came from various decal sets. These are cut to suit the model. My method is to cut out the letters or items required, remove them from their backing by soaking and then reassemble them in the required form on a piece of clear acetate. This is then cut out and glued in place on the model. For the MCV is used decals from the Protype set and from one of the Mand J series.

Well, there you have it, a bit more weathering to age the model and you can add the MCV to your revenue earning rolling stock.

FURTHER THOUGHTS ON EARLY AUSTRALIAN RAILWAY MODELLING.

Continued from page 29.

and Lionel were looked upon as tinplate stuff, but in later years some of these manufacturers turned out some very creditable models. All this time the local craftsmen modellers continued to make excellent models and it would be very interesting to know where these models are today.

Hobby Shops.

Bassett-Lowke and Marklin locos could be seen occasionally in the windows of Walther and Stevensons shop in George Street, Sydney. The story is that they had to replace the brass around the base of the windows as it had deteriorated due to fans drool dropping on it. In Melbourne, Clement Meadmore started to import some bits and pieces as a spare time hobby, and in later years he opened a store in the city. Also the captain opened the Model Dockyard, now owned by the Ducketts. Mr. Peter Duckett served his apprenticeship with Mr. Meadmore. There was an electrician or plumber's shop in Pitt Street, Sydney, just south of Bathurst Street. This had Gauge "I" and larger loco models in the window and also sold bits and pieces when available back around 1923.

About 1927 or 1928 K-Dee opened in Bathurst Street near George Street selling mostly model aircraft kits and parts. Later on railway models were sold there also. This firm moved into George Street below Liverpool Street and is now known as Hobbyco. About this time 00 models and parts began to come onto the market ans were well appreciated by those modellers who did not have the space for the much larger "0" gauge. Hobbyco and the Model Dockyard compare more than favourably with the much advertised overseas firms in the range of models available. As most of you know it was only in recent times that kits and models of Australian prototypes became available and modellers these days can be most thankful to the producers of this stuff making their time and energy available to produce this material.

A memorable event in the 1930's was when Austral Bronze produced their 702 rail. It was much oversize but much chaper than English steel bullhead, and also did not rust and had lower electrical resistance. The price was than 1/9 a pound. You know, even that seemed to be expensive at the time.

Model Railway Magazines.

There was great excitement in 1925 when the first issue of the "Model Railway News" arrived in Swain's Bookshop, because now we could see some of the stuff that was coming onto the English market. "The Model Engineer" was of course in print for years. "The Model-maker", put out by Spon and Chamberlain in New York, was nowhere near as good as the "Model Engineer", but it gave an insight into what was happening in America.

In 1934 Al Kalmbach and his wife and another modeller started the "Model Railroader", which was initially printed in a garage. Around the same time the "Model Craftsman" began. It originally covered all modelling hobbies, but later concentrated on model railways and became "Model Railroad Craftsman". In Australia in December 1935 "The Australian Model Engineer" was published and included "0" gauge model railway building. However it could not attract sufficient readers and in due course it folded. Another railway magazine that appeared for a period was the "Railway Enthusiast". It concentrated on real railways although its publisher was a railway modeller. After a while it too went on the road to oblivion.

Sundry Thoughts.

After the Second World War Japanese Brass models began to come on the market mainly due to the efforts of U.S. servicemen who were stationed in Japan in the army of occupation. Zamac castings and plastic mouldings improved no end after the war as a result of experience gained in the manufacture of these products. Most of these products were really beautiful and were a strong enticement to squander one's spare cash plus a bit more whenever they were seen. However all this has tended to kill much of the craftsmanship that was in the hobby in the early days.

What a thrill it was to build a loco or item of rolling stock from scratch and see it running on a layout! All who have done some scratchbuilding will know what I mean.

Mostly these days in the magazines we see where Joe Blo has rebuilt a Japanese brass Challenger or Pacific or what have you with Kemtron and Calscale castings. This is good but to me it is not really being a model railway craftsman. How much more thrill would Joe Blo have got if he had built something from scratch. Also today one has to work much harder to compete with commercial models when scratchbuilding. This is where most guys lose heart and say "Oh, I can't do that". It could be said that you will not know whether you could have done it until you have tried. If at first you don't succeed, as the old saying goes, try, try, again.

I remember a time when the late Joe Millier got into an argument about loco building, and the upshot was that Joe undertook to build a tender loco in one month. At the end of 30 days he turned up with a model of a LNWR 2-2-2 tender loco built from brass. It was unpainted but it was all scratch built down to the wheels and motor, and it ran. The detail would have done credit to a present day Japanese brass job. So you should take heart and realise that the almost impossible can be done.

Today you can enter a hobby shop and purchase all the gear you require. How marvellous to be able to do this and most do not realise how lucky they are. All you need these days is a credit card. Yet we still hear gripes because only an XYZ 5 loco is available and not a model of the rebuilt XYZ 6! Well you guys, get an XYZ 5 and rebuild it yourself into an XYZ6. Better still, build an XYZ 6 from scratch, and join the ranks of a new race of model railway craftsmen. Maybe your first effort will not look so good, but it will give you a great feeling of satisfaction, and with each model you build you will get better at it and gain more satisfaction. So how about getting stuck into it? Believe me, it's worth the effort, and the best of luck to you.

TERMINUS
Morgan S.A.

Winter rain stains fading signs,
scours trackless shunting-yards and hones
edges on a wind that whines
beneath the station's peeling eaves.
But once, a middle age away,
those ruins marked the final stage
of journeys home.

Though rain and wind spray weed-ringed walls
and set the rusted gutters streaming
down the flaking paint and pall
this slag-grey day, this waste-land seems
to host bright ghosts for those who've seen
the rainbows in the misting steam
of engines' breathing.

Frank McMahon
June 1978

MAILBAG

Sir,
Has consideration been given to reinstating the old three year subscription rate system to avoid complications, like postal strikes and delays. I realise inflation in printing costs and postal rates makes costs difficult to predict, but the rate could reflect this. I am sure some of us overseas subscribers would be willing to pay a premuim for a longer subscription for the saving involved in getting money orders and worrying about continuity. There seems little chance now that AMRM will fold as it might have done a few years back

Dave Wilson,
ONTARIO, CANADA

Unfortunately, being able to predict inflation of the Australian economy and the whim of the Australian Government (ie postage) is a rather difficult task for which we at AMRM do not have the talent. When the last three year subscription was in force, AMRM lost heavily on subscriptions over one year. Until the inflation rate drops to a steady 4-5% we are unable to even consider extended subscription rates. As for Dave's last comment, readers cannot rightly expect any AMRM staffer, past, present or future to continue this magazine indefinitely.

Bob Gallagher

Sir,
Having been a reader of your excellent publication, which incidently has improved beyond recognition since inception, I wish to make a couple of observations. Are the only layouts in this country modelled with one or two exceptions, on the Australian or American prototype?? From the article appearing each month, it would seem that either your staff are biased with regard to 'European' layouts, or that these do just not exist.

This latter I cannot believe, as there appear to be quite large sales, from all retail outlets, of Marklin, Arnold, Minitrix, Triang-Hornby, LGB, Fleischmann, Mainline, Liliput, Peco, Farish, and so on, but where are the layouts?? Could it be that people who have a liking for such strange machines as Scots, Arthurs, Black 5's, 01 Pacifics, V200's, E444's etc, hide their final efforts in building layouts in the chosen 'European' style away in the spare room, garage or whatever, I think not. It is said that 'Variety is the spice of life', so criticism or not, may your Editorial powers be exerted to add that little bit of spice to AMRM in the near future??

Then I, and no doubt many others can be acquainted with what exists in Australia, in the world of 'European' layouts.

Should you feel that these observations are worthy of a small space and to provide discourse amongst other readers please feel free to publish my letter with perhaps your open reply.

With good wishes for the future of AMRM and staff.

Rob Jones
Frenchs Forest

While Rob may have been a reader of AMRM since inception it is obvious that he has missed a few issues for in the past 2 years there have been two 'European' layouts, Abbotsbury Southern and Lillian Taylor's Swiss layout, and before that Bristol Midland. The coverage of layouts, like most feature articles in AMRM, relies upon the interest of the reader. If the reader does not send photos and descriptions of his/her layout to AMRM, how can AMRM publish them?

Bob Gallagher

Sir,
I don't have any time for modelling at present but get your magazine for when I will and think it is terrific.

The Reviews section is fine — it should be critical. Not being able to get out to see new items, this section alerts me of new availabilities — such as the Parcels Van. Keep up the good work and I suggest you pay particular attention to releases of Australian models.

I may soon have an article (my main interest is prototypical, not so much modelling) on Q.R. suburban operations, and/or the shunting of one or two Q.R. goods branches, with relevance to modelling.

Glen S. Hunter,
Carlingford.

Sir,
I am writing to you in the hope that you and your staff may be of help to myself and possibly to other readers. I am enclosing an SSAE for some of my replies and hope that the printing of Loco may be seen in the Mailbag section of the publication.

Some of the NSW locos, other than the 38 class, were painted in colours other than the black. Could you let me know or put it in the publication as it may be of interest to others to have locos painted in colours as it could add to the systems to see them in colours. I heard there were maroons, reds, different coloured greens and royal blues. Possibly a list of locos and what colours they were painted.

I would also like to thank you and your staff for the very fine publication you put out. I look forward to them coming every time.

F.G. Farmer,
Ellelong, via Cessnock, NSW.

To the best of my knowledge a listing of this type has never been published, if at all compiled. Perhaps there might be some reader who happened to take the time to do it and wouldn't mind sharing it with others. Ed.

Sir,
Is there any chance of having an article or two on N-TRACK in Australia. Some American magazines go into the woodwork and electrics of the modules but what plugs, etc. are being used here? Provision of adequate information may give N-TRACK the growth and publicity it deserves.

A.W. George,
Ballarat, Vic.

If anybody cares to write an article on this modelling concept we will be only too pleased to print it. N-TRACK is relatively new to the staff of this magazine, therefore we are not in a position to write about it ourselves. Readers wishing to probe into the merits of the system might best contact Mr. Jim Costello Jnr., Selwyn Street, Beaudesert. Qld. 4285. Jim has available various manuals and printed matter for the cost of around $3.00 posted. Ed.

Sir,
I would like to reply to a letter sent in by a reader in the last copy of the Railway Magazine. The comment was about the price of BA Taps particularly 12BA. The writer states that he was quoted $2.80 for a Tap but when he went to buy one the price suddenly rose quite dramatically. Our price as per catalogue for 12BA Taps is $2.60 and this price does not fluctuate.

R. & A. Mears,
Model Makers,
Padstow.

1978 SYDNEY MODEL RAILWAY EXHIBITION

The annual model railway extravaganza in Sydney was held in a new venue this year despite the trepedations of the dithering unassociated public. It seemed the pundits thought that the Royal Agriculture Society's Showgrounds at Moore Park would be too far for the public to travel. All was doomed to failure.

It is pleasurable to write that the pundits were wrong . . . very wrong. The crowds came and once again the N.S.W. Branch of the Australian Model Railway Association can boast at promoting Australia's top model railway exhibition. Held on the Labour Day holiday weekend in October at the Westco Pavilion in the R.A.S. Showgrounds 30 exhibits were presented to the viewing public. The overall standard of the layouts and the commercial stands was high, with a hint of professionalism being showed by some displays.

Scales represented included '0' with Col Shepherd and Norm Read's large layout, 'N' with a broad American expanse by the Sydney 'N' Gauge Model Railway Society, 'TT' by E. Mullet and numerous H0 layouts, the more outstanding being two displays by the Prospect Model Railway Club, the coal line layout displayed by the N.S.W. Model Railway Club, Tickhole Tunnel layout exhibited by N.S.W. Branch of A.M.R.A., Kevin Brown's Mount York layout and Blaney displayed by Peter Moses. The minority or more unusual were represented with displays of LGB by Trevor James and by Colin Everitt, 009 by Susan Betts, H0 Swiss and On2½ tram line by Eastern Division of S.C.M.R.A., Trams by the Model Traction Association and Commonwealth Model Tramway Group and live steam on 6mm gauge by Arthur Sherwood. The most noted sign at the exhibition must have been that on Arthur Sherwood's display which requested the public from breathing on the models. One must wonder if the slightest breath would derail the engine or put the fire out on one of the exquisite miniature masterpieces that have to be seen to be believed.

The commercial side was represented by a large number of prominent hobby shops and distributors who showed to the public, especially the new and potentially new, some of the products available in the hobby shops. It was pleasing to see EMAIL (Marklin) and Intertoy (Hornby) join the ranks with Australian Model Craft in showing their wares. An interest by the big distributors such as these is a healthy sign for all hobbyists.

The judges, Allan Brown, Jack Parker and George Aitcheson gave the Best Layout Award to Kevin Brown's Western Division layout, which depicts a NSWGR scene in the mountains west of Sydney. The public voted for the American prototype layout displayed by members of the Prospect Model Railway Club. The organisers can be pleased with their efforts and no doubt we can all look forward to future exhibitions at the Westco Pavilion.

Bob Gallagher.

PROTOTYPE PLAN: N.S.W.R. 'ACM' Composite and Sleeping Car.

Continued from page 31.

"changeover" passageways located at some point within the vehicle. Thus, in the case of the ACM, each passenger unit was isolated from the others. No vestibuled connections were fitted to either end of the ACM coach.

The first class portion of the ACM car comprised a single compartment served by a short corridor leading from the end vestibule of the car. This compartment seated 6 people. The centre of the car consisted of a cross-vestibule from which two corridors started, the first serving two Mann type twin berth cabins, the second, a single Mann type sleeping compartment. The economy (second) class section of the vehicle had two compartments, each seating 8 people, located off a side corridor leading from the end vestibule. At the end of each of the four corridors, a toilet and washroom was located. The total capacity was 6 first class, 16 economy (second) class and 6 sleeping passengers.

The livery for the ACM cars is the conventional red colour scheme applied to N.S.W. locomotive-hauled cars. Lining, above and below the windows, appeared initially on these vehicles but over the years this was replaced by the single buff coloured waist band. Some cars, in recent times, had the upper lining band restored to them.

(Text researched and compiled by Paul Rogers)

References:
1. 'New South Wales Digest', Vol. 15, No. 1 (January 1977 issue), pp 3-4
2. 'N.S.W.R.T.M. Roundhouse', Vol. 4, No. 5 (July 1968 issue), p. 15
3. 'Engine Loads General Indstructions' (N.S.W.G.R.) dated 1/8/1949, p. 26

Acknowledgements:
1. Public Transport Commission of New South Wales
2. John Forsyth
3. John Beckhaus
4. Peter Neve

DUAL GAUGING TURNTABLES

Phil Morrow

In response to Laurie Woods' article in AMRM, September/October, 1977, on Mixed Gauge Crossing, I offer the following solutions to dual gauging of turntables.

There are two solutions to the problem and each involves the use of a four-rail bridge. The main differences in construction are in the placement of the rail.

The solution you choose for your model railway is dependent upon two factors:

1. Which is the dominant gauge serviced by your turntable; and

2. What era you model, or the design of your turntable.

Solution 1

In the situation described by L. Woods in his article the dominant gauge is H0 with H0n3½ being second party. As the turntable is indicated as already existing in his layout the H0 gauge would be concentric to the bridge. Also by comments of locomotive power the era is modern and the turntable design would also be modern — i.e., supported at the ends and not relying on balance of locomotive and bridge for turning as was the case with the vintage Armstrong type turntables.

To dual gauge then, four rails are required with a double gauging of H0n3½ based on each rail of the H0 gauge. (See Fig. 1).

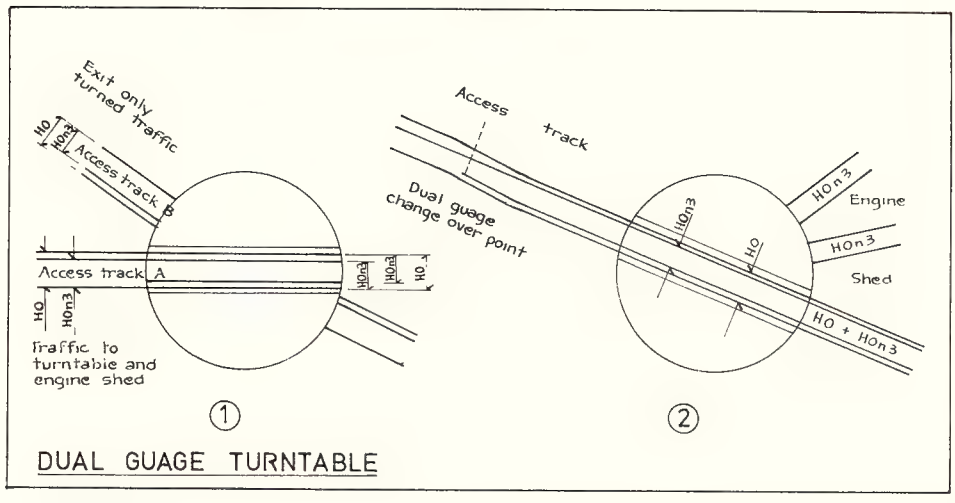
As the H0n3½ gauge is off-centre on the bridge, traffic restrictions will have to be placed on the movement of H0n3½ locomotives. An example of such restrictions may be:

1. All traffic to enter by access track A. This track may have all servicing facilities, or both tracks may.

2. All locomotives to enter engine sheds facing East.

3. Locomotives facing East will exit via access track A.

4. Locomotives facing West will exit via access track B.



DUAL GUAGE TURNTABLE

The gauging of the turntable bridge in this fashion provides both H0n3½ and H0 gauges aligned to access tracks at all times.

Solution 2

Chillingham is the headquarters of my H0n3 Calvgabar North Western and the interchange point with the H0 Pacific Valley lines. The period modelled is the late 1920s and an A frame turntable services the engine shed and machine shop. Turning facilities are provided on this turntable for the lightweight PVL locomotives which operate from Chillingham to Murwillumbah where further interchange occurs with the NSWGR.

In this situation the H0n3 gauge is dominant and only one of five tracks to the engine shed and machine shop is dual gauge. The turntable design dictates that locomotives balance on the bridge and as such both H0 and H0n3 must be concentric. In the previous situation we had H0 gauge on centre and H0n3½ offset.

The solution to the second situation presents no alignment problems but facilities must be provided to convert from the normal three-rail dual gauge to the four-rail concentric dual gauge. (See Fig. 2.)

There is no reason I can think of why the concentric dual gauge track could not be used on a modern turntable. However, I feel it is easier to change common rails on a three-rail system dual gauge than to convert from a four-rail to a three-rail dual gauge. Perhaps there is not a lot of difference.

AMRM NEWS

Continued from page 37.

AMRM and, hopefully, a brief word here will correct them. The cover photo of last issue was taken by John Nicholson — sorry John! We also had a brief note pointing out the inaccuracies in some comments on the Bargo layout in the report on the 1978 Canberra Exhibition. Sawdust was not used for scenery texture.Instead flock, caneite and real dirt was used. (The more humorous in our ranks could even suggest that Bargo is a dirt(y) layout.) On the Canberra report we erred in reporting that the Model Shop was in attendance.

Censorship????

After learning our lesson the hard way many times over the past few years AMRM has developed a policy of restricting (editing) some letters from readers. To save you the reader the time and us at AMRM the effort of explaining the reason to each correspondent the policy will be briefly outlined below.

Continual pedantic criticism of prototype detail accuracy will not be encouraged. While we cannot always guarantee to present 100% accuracy of articles the continual pointmaking by individuals (with differing point of view) does not make interesting reading nor does the continual comments get the reader needing the information for he/she usually tires of the debate.

The same criticism is avoided of reports by AMRM staff on exhibitions and reviews. Readers must be aware that the reporter has his own point of view and no matter how hard he tries, some of his views will be projected in his work. There is little to be gained by encouraging readers to debate his every point.

The last area of editing is probably a little dicey, but nonetheless a posing problem, for we have become aware that some exhibitions' committeemen are making written comments on exhibitions run by other organisations. Comment on exhibitions is to be encouraged but some of the comment from opposing committeemen is coming over in a very childish manner.

There is little doubt that by revealing the above restrictions some readers will be upset. While we do not seek to enter into correspondence upon any of the decisions we would welcome comment not necessarily for publication, opposing any of the above policies.

Price Rise.

This is the time of the year that we at AMRM usually have to sit down and estimate our budget for the next year and increase the cost of AMRM to cover both expected and unexpected price increases. Fortunately this year the rise in the cost of AMRM will be put off for an issue or two until we can gauge better the future rise in printing costs. Unfortunately the subscription rate will still rise to cover the increase in the postal rate that will be applied in 1979.

Xmas Cheer

Once again the festive season is upon us and no doubt many fathers will buy themselves . . . sorry their sons a model train for Xmas. Maybe some of them will become AMRM readers and share their thoughts with AMRM. On behalf of all AMRM staff may I extend the season's greetings to all readers, both friend and foe, and may I on behalf of Allan Brown and the staff thank all those who sought to make our job of preparing AMRM a little easier

N.S.W. WAGON COUNTDOWN — 6

In 1955, the N.S.W.G.R. had 651 'RU' type four wheeled bulk grain hopper wagons available for service. By 1978, only 328 vehicles of this type remained on the N.S.W.P.T.C. register.

Paul Rogers

This publication accepts no responsibility for the accuracy or reliability of articles or advertising contained herein, statements made or opinions expressed in papers or discussions, nor do we necessarily subscribe to the views expressed or implied by contributors. Neither is any guarantee implied or expressed as to the good conduct or practise of advertisers herein. This publication reserves at all times, the right to refuse acceptance to any matter considered unsatisfactory for publication.

Steam heated carriages — NSWGR

With such a wide range of NSWGR carriages now available in model form, the following information may be of interest to modellers who wish to add additional detail to their rollingstock.

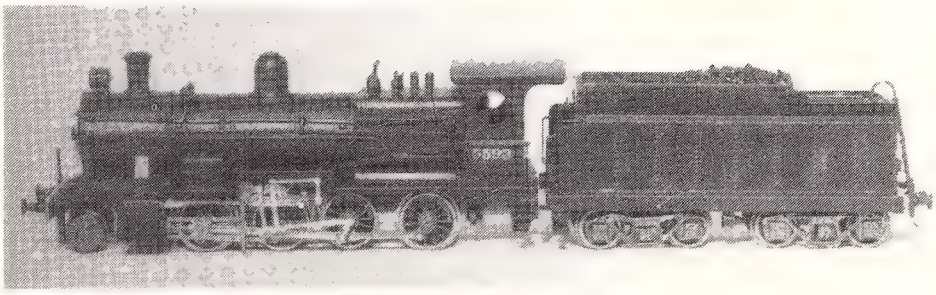
The fitting of steam heating equipment reached its peak in the early 1950's but carriages remained fitted for many years thereafter. HKL-360 in the museum at Thirlmere is probably the only vehicle which still has this equipment today.

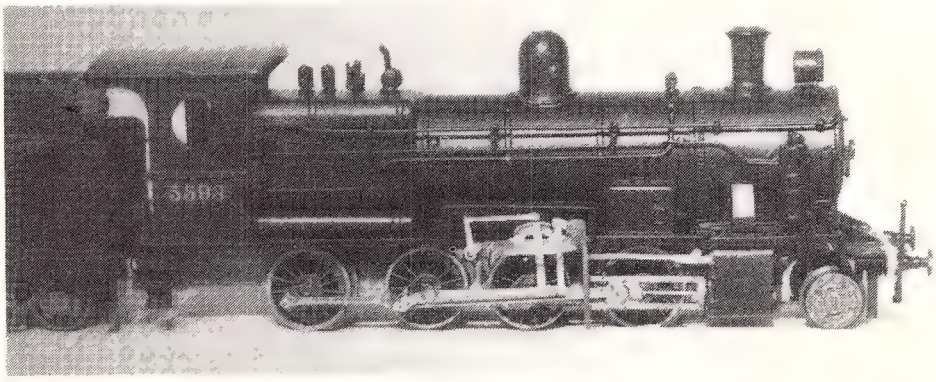
I will not claim that the listing covers every vehicle fitted with steam heating equipment or through piping but it is significantly comprehensive to allow modellers a wide selection of carriages and numbers from which to choose. Some carriages now have new or altered codings, but the following are the codings applicable when steam heating equipment was fitted.

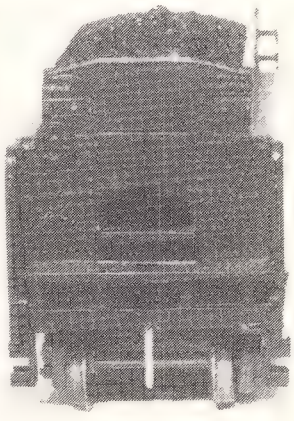
TAM 504, 638, 696, 715, 748, 903, 934, 1834, 1891.
CAM 581, 800.
BS 2031, 2032, 2033, 2034, 2080, 2155, 2156, 2165.
MBE 549, 559, 813, 839.
TBC 443, 538, 577.
FS 2010, 2011, 2012, 2014, 2016, 2025, 2028, 2097, 2099, 2101, 2103, 2121, 2123, 2126, 2144, 2149.
MFE 866, 1855, 1859.
MCE 560.
RFM 91, 92.
EHO 668, 1833, 1988.
MHO 1872, 1976, 1877, 1903, 1909.
HKL 360.
'R' class sets 100, 105, 106.
Continuity Cars. (External piping only)
TAM 710, 906, 1926, 1927, 1930.
KAM 507, 508.
MAM 907.
MCE 220, 540.
EHO 1288, 1750.
MHO 743, 766, 1905, 1910, 1911.
MLV 25681, 25685, 25693.

Graham Ahern.

REVIEWS







NSWGR D55 class loco and tender kit in HO scale by FSM, PO Box 169, Forestville 2087. The sample was supplied by FSM. Price: $110.00 plus postage.

Once again the NSWGR D55 loco is on the scene. Firstly it was laurie Evans' hand-built model in the May/June 1978 issue of AMRM, then the DATA SHEET plan of the D55 and now FSM's HO kit of a D55. 1978 must be the year of the D55. Why the attraction to this class of goods engines that ceased duty early in the demise of steam? To many modellers the D55 has the aurora of a challenge, for the Southern Valve gear is not an easy motion to model. A full coverage of the class was published in the May/June issue which is, unfortunately, now difficult to obtain.

Briefly, the class was introduced in 1918 and 120 units had been built by 1925. The unit followed the design of the earlier 'T' and 'TF' classes (which were later coded the 50 and 53 class). The D55 (K class as introduced) was used for general goods service and saw service with a few different tenders. Originally the Wampu tender was standard, but some saw service with the standard turret tender. In 1946 many of the class were converted for oil firing and visual changes were evident, the most noted being the oil tank in place of the coal bunker.

The FSM kit as supplied represents the D55 class after reboilering, with a standard turret tender. The kit is supplied in a stout cardboad box, with a full set of instructions, a plan and a diagrammatical reference to the Southern Valve gear. The kit is complete except for paint, decals and couplers. The motor is a BCM unit, the drivers 14mm Romford drilled and tapped for 14 BA screws. 50 to 1 gearing is included but, if Kadee above track uncoupling ramps are in use on your layout, change the gear to 40 to 1, for the 50-1 is too deep to clear the uncoupler. Apart from some wire and ladder most parts are cast metal. The major components are cast in an alloy crisp in detail; the drive rods and valve motion are cast from a Zinc alloy which is very tough and should stand the test of time against the wear and tear of operation. Some detail items are supplied as lost wax castings which are not quite as crisp in detail as the metal parts.

The sample under review was an advance sample and had the standard FSM chassis which is sections of brass assembled and drilled (by FSM) ready for the mounting of the mechanism. This is relatively easy to assemble as long as the instructions are followed. The valve motion looks more difficult to assemble than it really is. The diagram is explicit, and as long as care is taken a free moving motion can be the finished result. A few tips is to clean all motion parts, check that the moving parts have clearance holes and take care with the rivetting.

The flash on the body and tender is minor. Castings are clean and most parts assemble without any difficulty at all. The tender is a one night project. The loco body can be assembled in one night but needs a few more evenings to detail. When assembling the loco body place the footplate on a flat surface to ensure straightness. The boiler is a two sectioned unit, split down the middle, and assembles easily. Any gap can be filled with body putty.

Dimensionally, the model is very accurate, with only a few liberties being taken with the position of the drivers in relation to the valve motion. Some rivets are a little too large in diameter and the bending of the ladder on the tender is a difficult task. Some modellers will steer clear of the D55 kit due to its complex appearance. They will not only be in error but will miss out on a fine model, capable of heavy loads at low speeds.

Bob Gallagher

1979 calendar published by Association of Railway Enthusiasts, PO Box 221, Caulfield East, Vic 3145. Price: $3.35 plus 85¢ postage.

A calendar is an essential piece of stationery around the house but if it can be one adorned with trains, and steam trains at that, it can become an enjoyable fixture. The 1979 ARE calendar is a seven page spring bound and is 310 mm × 410 mm in size. The colour photographs are 280 mm × 178 mm and the scope of the photographs cover steam trains around Australia. The cover is adorned with sunset photograph of 3813 hauling a division of the Western Endeavour. There are two photos of canefield locos and a further coverage of Puffing Billy on the Monbulk Creek trestle. Other locomotives featured at the head of a train include a VR 'R' class and D3 class; TGR H5 class, QGR 'BB18¼', SAR 'T', WAGR 'W' Class and 'V' class and a NSWGR AD60 class. The photographs are of good quality but as they back onto one another there would only be six available for future framing, unless two copies were purchased. For the modeller the makeup of some of the train consists shows how diversified railway operation can be.

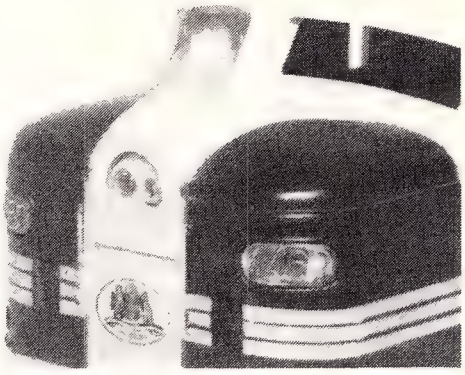
Bob Gallagher.

40 ft Piggy-Back Trailer and Tractor by Athearn in HO scale. Sample supplied by Alce's Hobbyshop, Shop 6, 20 McFarlane St, Merrylands 2160. Price: $4.90.

This Athearn model is what is called a shake-the-box kit, the quotation not being disrespectful to the product. The kit needs no painting, very little glue and very few tools. The small part of flash evident on the plastic mouldings can be readily removed with a small file. MEK solvent was used to secure some parts together. By following the assembly instructions 30 minutes was all that was needed to assemble the model. The result is a White Freightliner tractor, being an 8 wheel drive having full windscreen, horn, exhaust and chrome grille. The detail on the trailer equals that on the tractor and is first class.

The model is very easy to assemble and is recommended to all starters in model building. The colour scheme, lining and lettering is without fault and the completed model would be at home on any modern layout.

Bob Gallagher.



The window on the left has been treated with Kristal-Klear.

Kristal-Kleer by Micro. Sample supplied by Alce's Hobbyshop, Shop 6, McFarlane St., Merrylands 2160. Price: $1.40.

The brand name on the bottle does not give any hint as to the product until it has been used. Basically is is a solution that once applied to an open space, sets hard and is crystal clear. Obviously it is aimed at being used as a window material and it caters for that task very easily. As supplied it is a solution that looks like PVA glue and is applied to the open window with a tooth-pick and the actual glazing is achieved by actually forming a film of the solution over the open space between the window sides. The solution dries, after a few hours, clear and hard. The solutiion is supposed to be restricted to spanning a gap of 6mm but with care it can be used over bigger areas. For an exercise it was used on a Lima 44 class, as a windscreen glass. The result is shown in the photograph.

Bob Gallagher

LITTLE TRAINS OF THOUGHT by Merv Smith and Ches Livingston.

A modelling friend of mine brought this book back from New Zealand recently. He left it lying on a bench at a recent Model Workshops meeting and the colourful Emett style of locomotive on the cover and the intriguing title "Little Trains of Thought" caught my attention. Looking quickly through the pages I found that it wasn't the run-of-the-mill railway oriented book and so decided to review it for the benefit of magazine readers.

Enquiries at Whitcomb & Tomb, Australian agents

for the New Zealand publishers have revealed that the book is available in Australia for $8.95, but a quick lunchtime flit through Sydney bookshops failed to find a copy; but remember, 'it is available'.

Two New Zealanders, Merv Smith and Ches Livingston have combined to create this very entertaining book. Writing alternate chapters, Merv Smith deals with the seriousness of designing and modelling a rail transport system, while Ches Livingstone delivers a 'tongue in cheek' resume of the world's railways and related characters.

Merv Smith, so the dustcover says is a New Zealand media personlity and a railway nut. In his chapters he descibes his early attempts at modelling and how his modelling philosophies developed A description of his mythical 'Pikipiki Tramways & Collieries Company Limited' covers layout design, loco design, rolling stock and scenery construction.

The 'Pikipiki Tramway' is constructed in HO scale using 9mm track which results in a HOn2½ gauge Using available HOn2½ models and some N scale mechanisms Merv Smith has created some very interesting narrow gauge loco's, one of interest being a quarry loco and attendant wagons using 'Z' scale machanisms and rolling stock. HOn20" !!! The possibilities are very tantalising.

Being a freelance system the imagination can run wild. The author warns about being carried away with grandiose improbable loco designs. All his designs have a credibility about them and as he says, there are plenty of narrow gauge prototypes throughout the world to glean ideas from. Merv Smith's description of his models, the purpose of his layout, the simplicity of narrow gauge and his interesting and creative loco and rolling stock designs is almost enough to make me want to go N scale and start to create myself. Looking at the 32 pages of detailed station layouts and photos of the layout, mostly in colour, only increases this desire.

Ches Livingstone's chapters are full of humour and raise more than a chuckle. In his chapters Ches. describes and comments on subjects ranging from childhood railways to the naming of locos. His comments on wiring layouts and railways in movies are particularly clever. having experienced railways throughout the world whilst working for the British Government and various private firms, his personal experiences with railways and modellers, coupled with a cynical humour, results in very interesting reading

Dustcover descriptions of the authors show that they differ in character but they seem to compliment each other superbly and the result is a very entertaining and different railway book. Reading this book has forced me to rethink a lot of my modelling ideas, especially towards prototype and standard gauge modelling. Modelling as described in this book must be very creative and great fun. This book is thoroughly recommended

Ian Thorpe

CAVALCADE MINATURES: Wheelsets in either spoke or disc variations in sizes 10, 10.5, 12 and 14mm. Samples from Sans Souci Sports and Hobby Store, 504 Rocky Point Road, Sans Souci, NSW 2219. Price: 70¢ for two axels all sizes.

A new addition to the range of commercially available wheelsets the samples under review are manufactured in Victoria by Cavalcade Miniatures Their construction is similiar to those manufactured by MGW in that they consist of a turned steel axel, cast plastic wheel centre and turned steel wheel rim

There are two sets of criteria to be considered when examining wheelsets The first group is the performance related criteria which largely depends on the engineering and dimensional standards used and the second criteria which is partly related to the first is their appearance

On the engineering side these wheelsets are well put together. The axels are straight and the wheels are firmly and accurately attached to give a wheelset free from wobble when rolling The axels are pin point. The cast plastic centres come in disc, eight or nine spoke variations and the castings are excellent with sharp detail The rim thickness is .7mm and this is small enough to produce a good looking wheel (By comparison MGW rims are .86mm thick and much too large) The machining of the tyres needs improvement as the tyre surface is rough and uneven

Turning to the dimensional standards used I compared the wheelsets against the recommended standards of the NMRA and found in general the wheelsets fall within the NMRA standards but as NMRA standards are specified in terms of minimum or maximum measurements and these wheelsets generally have dimensions falling right on the recommended maximum or minimum some problems do arise as is pointed out below

The wheel profile does not conform to RP25 and no attempt to achieve a profile close to RP25 appears to have been made. The flange depth is .94mm which is above the NMRA and AMRA recommended maximum of .90mm. This results in a poor looking wheel similiar to MGW with their overlarge flanges and is not in the same class as Kadee or Bergs wheels with their RP25 flanges which measure out at .74mm. Tyre width at 2.70mm is slightly below the recommended 2.80mm minimum The critical back to back dimension measures out at 14.43mm against the recommended 14.36mm minimum and should give no problem with the main brands of track (AMRA standards suggest a back to back measurement of 14.45mm as the ideal to aim for rather than the minimum suggested by NMRA.)

The steel rim and axel will give problems with Kadee uncouplers and will also collect a coating of rust. One wonders what the cost of plating them would do to the price as it would certainly improve the appearance.

I have always been a strong advocate of using metal wheelsets for maximum reliability and performance of rollingstock and have tried just about every make available. This wheelset is most competitive in price, of good manufacturing standard with the poor profile and overlarge flanges as the main drawback. I understand the manufacturer is seeking ways of improving and extending the range available and with improvements in the areas mentioned above this could become one of the best wheel ranges around. Its good to see a local manufacturer active in this field and the product deserves encouragement

Ron Cunningham

4mm Scale Point Rodding Kit by Colin Waite, 20 Berwick Rd., London. N22 5QB, U.K. Price: Support Frames Se $1.50, Cranks Set 1 pound, 5m roll square wire 30p.

This etched point rodding kit is available by mail order from Colin Waite, the manufacturer, in the UK. In common with other etched kits made in Britain the quality can only be described with superlatives. The more remarkable when one considers the difficulties involved in photo-etching. Acid eats away at metal in an unpredictable fashion, and some of the parts in this kit are only 0.016" wide in 0.005" and 0.010" thick material. Every piece is perfectly shaped and there is not a blemish or flaw in any of the individual items.

The kit comprises two sets of components, available separately. The Point Rodding Cranks Set contains 31 cranks of various shapes, compensator sets which are placed every ten yards or so in prototype rodding to allow for expansion and contraction or to reverse direction, and sufficient bases, sleeves and washers to assemble them all.

The Point Rodding Support Frames Set contains 240 support frames and 18 base strips which can be cut to accommodate any number of support frames. In prototype installations the rodding is carried on rollers in support frames about every nine feet.

All parts have holes in the appropriate places, which need opening out with a drill to suit the sizes of wire and pins used. The modeller must supply his own pivot pins, and wire if he wants round rodding. Colin Waite supplies 0.017" square wire in five metre rolls for square rodding.

Being made accurately to 00 scale the parts are only slightly oversize for H0, and in parts as small as these that is likely to win more devotees than dissidents.

The kit can be assembled in one of three ways; fully operating (they really do work!), operating in reverse (i.e. the points move the rodding), or static. Whichever way they are built the finished product is extremely pleasing and fills a gap in layout detail that most of us have accepted a little too readily in the past.

The instructions contain a good deal of prototype information but modelling information is a little brief. I found the kit produced a fine looking end result but I needed to make a couple of jigs to make the job easier. These pieces of wizardry cannot be assembled with a quick flick of a slightly blunt screwdriver. They do require a degree of fine manipulation and patience that many modellers will not have used for a long time, but the reward for the time spent is immensely satisfying. There is more that can usefully be said in the construction of this kit, so it will be expanded in an article to follow shortly.

Ross Hurley.

"The Railroad That Came Out At Night" by Frank Kyper. Published by The Stephen Greene Press, Brattleboro, Vermont, U.S.A. Published 1977. Review copy from the agents, Thomas C. Lothian Pty. Ltd. Melbourne. Recommended Retail Price $13.25.

It's surprising what you can find in the most unusual sources. This book would seem at first to have very little interest to the Australian model railway scene, but this little book on the subject of industrial railroads in and around Boston (Massachusetts, U.S.A.) contains items of interest to all modellers.

This book of approximately A5 size contains 160 pages between hard covers. It is nicely designed, a rare thing especially in Australian railway books, and is printed in the style that includes photographs with the text so that they are near their reference in the text.

Frank Kyper is a writer and public relations executive who tells in this book of his spell of over three years as a level crossing operator in Boston. His resignation from a job with the State Government during a time of high unemployment led him to the temporary job of gate-crossing tender on the Boston and Maine, where he discovered that this job had changed little since the earliest days of railways.

In other parts of this book Kyper gives two historical profiles of industrial lines, the Union Freight Railroad Company and the Fore River Railroad Corporation, complete with locomotive rosters. Each of these lines provides ideas for the design of industrial model railways.

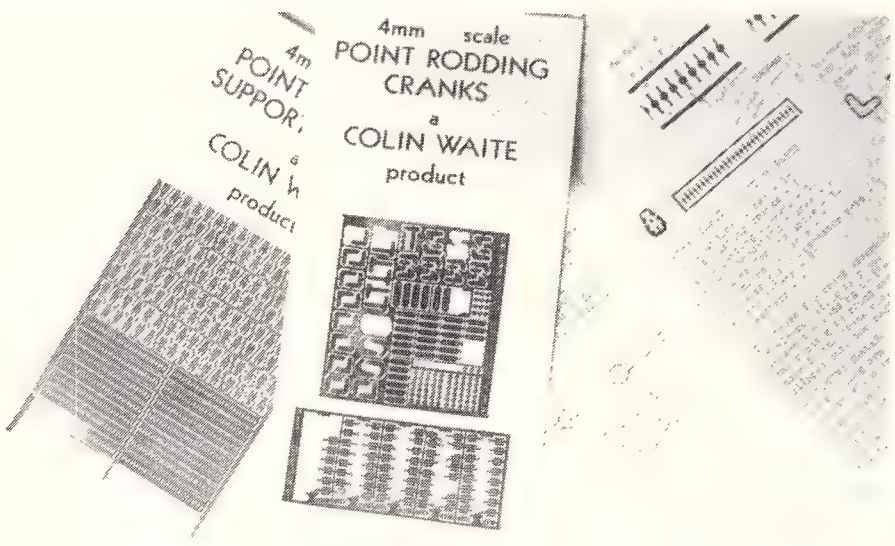
The arrival of Alan Pegler's Flying Scotsman in 1969 is also described in this book along with a history of Boston's South Station which was narrowly saved from demolition and the story of the construction of a maintenance yard for the Boston rapid transit on the site of the old New Haven yards which had been built over an earlier yard. This yard had just been filled in so that almost complete buildings lay below. The excavations were slow and difficult.

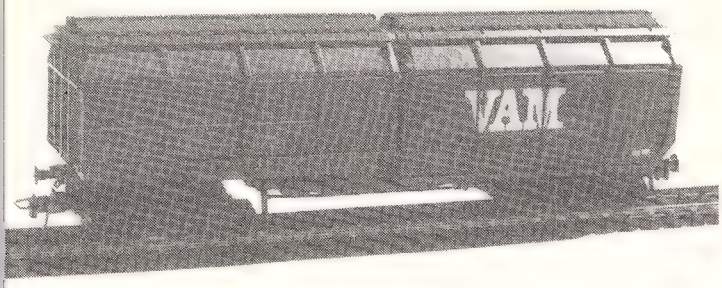
John Bevan.

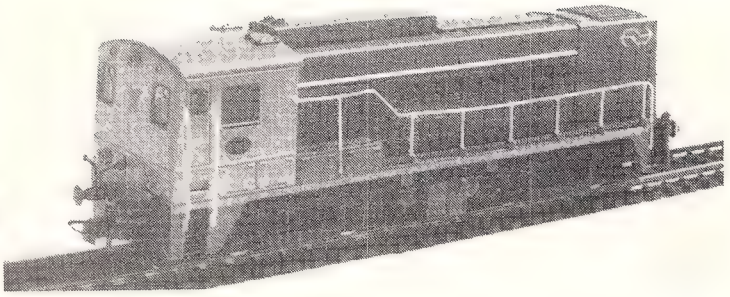
ROCO — Netherlands Railways Side Discharging Garbage Hopper Wagon. Our sample supplied by El Toro Toys, 43 Currawang Street, Concord West, NSW. Price: $7.95.

The prototype is used for transport of sorted household garbage from the big cities to incineration facilities in the Eastern Netherlands, where it is converted to fertilizer and by-products.

The model is of all plastic construction with perfect detailing, especially of the frame. All brake gear and pneumatic discharge componentry is there, either moulded on or as separate attachments. Bogies are also well detailed and the metal wheels have flanges to NEM standard. The usual continental (Marklin) type couplers are provided, but can be changed to Roco's close couplers quite simply. The model is painted in the correct apple green livery, all lettering appears to be painted on.







In conclusion, I like to recommend this free rolling model as a worthwhile addition to a continental layout.

Nick Ellmer.

Model Quarry Co. Ballast and Coke. Our samples supplied by the manufacturer Model Quarry Co., 1/33 Close St, Wallsend, NSW 2287.

These two samples (ballast and coke) were received by us each in a relatively large plastic bag and tagged with luggage tags — in other words they were samples in the truest sense of the word. I have no idea therefore of how the production packaging looks and certainly will not castigate a manufacturer on what I have not seen.

The ballast is tagged as "No. 100 Blue/Pink H0 authentic NSWPTC quarry ballast to scale". All of this statement is, to the best of my knowledge, true and the product is indeed pleasing to the eye, being as it is in a range of earthy colours. Naturally it is metal. It spreads easily and looks well when in place. However, it has one fault — it is magnetic. Any loose particles finding their way into the magnetic field of a loco's electric motor could cause problems.

The sample is one of two different colours available from this manufacturer and as a sample of the other (No. 101 Grey) is not to hand, I make the same comment as I did on the packaging. Anyway, it is a wise modeller who securely glues down his ballast, whatever the make or material.

The "No. 103 Coke H0" appears to be small particles of slag or something similar. It has a shiny appearance about it. Unfortunately it, too, is magnetic but not as much as the ballast. If it is going to be transported loose I would suggest that you do so with care, else glue it down to represent a wagon load.

Both products are available direct from the manufacturer at 65 cents for a 4 oz. bag or $2.40 for a 1 lb. bag.

Allan Brown.

ROCO Crocodile Locomotive, in H0 scale. Our sample supplied by Punchbowl Hobby Centre, 545 Chapel Road, Bankstown, NSW. Recommended retail price: $111.00.

In 1923, because of the growing heavy express traffic in the Arlberg district, the Austrian Railways ordered new locomotives.

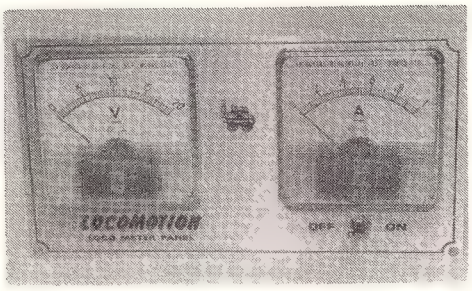
As the Swiss State Railways were very satisfied with an articulated electric locomotive, this type was chosen. Over the two four-axled bogies with rod coupling, there is located a small cabin in which are both drivers' positions and also room for the high tension equipment, main switches, and the transformer.

This 'stretched' articulated type of locomotive was given the name of "Crocodile". The Type BR 1100 (as modelled) is to this day still in use, but relegated now to menial tasks.

The model depicts faithfully all the character and magnificence of the real thing. The three-piece articulated body is injection moulded plastic with the usual detail and fidelity synonymous with ROCO. The large centrally located 5 pole can type motor drives through reduction gears to each drive bogie. Bi-directional lighting is fitted, as well as overhead pick-up facilities via the model's two pantographs. Traction tyres are fitted to four of the twelve drivers, the flanges of which are to NEM standards but acceptable to most fine scale Code 100 trackage. European type couplers (Marklin, Lima, Rivarossi, etc.) are fitted and provision is made to fit ROCO's unique close-coupling system to this model. All handrails must be put on by the modeller (if he chooses) and come pre-formed and ready for mounting. The body is already drilled to take the handrails.

The model operated very smoothly and quietly at all speeds, from dead slow crawl to top speed of around 100 scale mph. It had sufficient power (and then some) to more than satisfy the dedicated hobbyist. For the European prototype modeller who desires quality at a comparable price, you can't go wrong with this model.

Allan Brown.



Locomotion Locometers. Our sample supplied by Sans Souci Sports and Hobbies, 504 Rocky Point Road, Sans Souci, NSW 2219. Price: $35.00.

This attractive unit is intended as an "add-on" to Locomotion's DC controllers. It consists of two meters — a voltmeter with a reading to 20 volts DC and an ampmeter with a reading to 1 amp. The latter is provided with an on/off switch. Both meters measure 58 mm square and are mounted on an etched aluminium plate 165 mm by 88 mm, similar in style to the controllers'. The whole unit is intended for panel mounting. Instructions are enclosed for wiring to Locomotion controllers (a simple soldering job) or others. Both meters record accurately, and can be easily adjusted in the zero/off position should they get out of whack.

Whilst the 1 amp rating is comparable with the output of most commercial transformers there is the odd loco or two (Athearn double-heading, Tenshodo gear drive diesels and the like) which can draw amperages in excess of 1 amp. In most cases the layout that contains such locos is invariably powered by a bank of transformers of around 3-4 amps output each. It is this reviewer's opinion therefore, that perhaps a heavier ampmeter would be more advantageous.

Meters of this type are handly for monitoring locomotive performances and are an ideal way of assessing the condition of motors, wheels, pick-ups, short circuits, etc. It is suggested that thought be given to including meters when building a control panel.

Allan Brown.

ROCO Netherlands Railway Class 2200/2300 Diesel Electric Freight Locomotive, in H0 scale. Our sample supplied by El Toro Toys, 43 Currawang Street, Concord West, NSW. Price: $42.50.

The first locomotives of this class were introduced to the Dutch Railway system in 1955 to replace steam power on mainline freight services. A total of 150 units were built by a combination of Heemaf-Stork-Allan and the French locomotive plant Schneider. Total weight is 72 tonnes and the engines have a power output of 900 hp.

These locomotives are often used triple-headed for heavy goods trains and have a striking appearance because of their mufflers on top of the engine cowling. Maximum speed is 100 kph.

The model has a cast metal frame and plastic body. Both frame and body show a wealth of detail e.g. fuel and air tanks, battery boxes, louvered doors in engine cowling and even door hinges. Handrails are of a pliable plastic and care should be taken when lifting body from frame that the handrails are not damaged. Vacuum pipes and electrical cables are provided as separate attachments front and back. Bogies are of plastic construction and are as well detailed as the rest of the engine. The wheels have flanges to NEM standards.

Power is obtained from a hefty can motor which drives all axles through a system of spring loaded universal shafts, worms and straight gears. Three headlights front and back change with direction. Pick-up if from all wheels and the electrical system is concentrated on two printed circuit boards. Pulling power is increased by a rubber tyred wheel on each bogie.

On test the model pulled a train consisting of 6 compost hopper bogie wagons and 6 two axled coke wagons with ease, at a slow crawl as well as at higher speeds. A simple rheostat controller was used on the test and it was felt that if a solid state controller was used the model would have performed even better.

The model is certainly of the high standard we are used to of this manufacturer and deserves the Continental modellers' interest.

Nick Elmer

N.S.W. Rail Transport Museum's 1979 Calendar. Our sample supplied by the Museum's Sales Office, 27/15a Belmore Street, Burwood, NSW 2134. Price: $2.50 (plus package and postage).

The Museum has again continued with its successful format for the set-out of its 1979 calendar. It again measures 280 mm wide by 375 mm high. Dennis O'Brien takes honours for the cover photo this time with a superb shot of the Vintage Train circa 1966, with its crimson and cream cars hauled of course by green 1243 and red 1709. A wheel-level shot (uncredited) of the drivers of a C38 class takes up most of the back page.

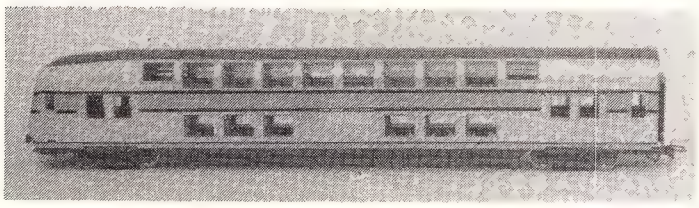
The month pages (double sided) each feature 260 mm by 172 mm pics of various steam working throughout NSW. The diesel shot this time is of 4302 heading the North Coast Daylight Express round Mullet Creek north of the Hawkesbury River in 1959. All shots are, as usual, in full colour.

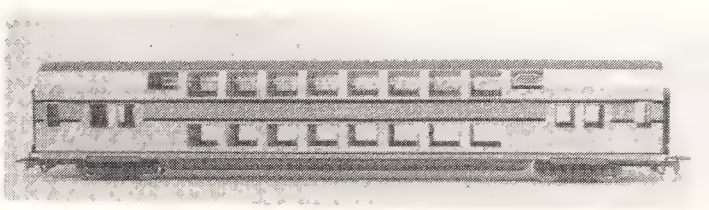
The calendar is well up to the standards of publications produced by the Museum and is a definite must for any rail enthusiast's wall. I would assume it to be on sale at the Thirlmere site as well as the Sales Office.

Allan Brown.

Airfix Royal Scot Locomotive in 00 scale. Our sample supplied by Casula Hobbies, Hume Hwy, Casula, NSW. Price: $47.50.

This is the largest of the steam locomotives in the Airfix range and is tender driven. The





sample was in matt BR green lined in orange; a version in lined LMS black is also available.

The model is of the rebuilt Royal Scot with tapered boiler and double chimney. Very nicely detailed with many fine mouldings. There are wire handrails on the boiler and the whistle and safety valves are separate turnings.

The tender has six traction tyres and is semi-permanently coupled to the loco. The loco runs well with a minimum of tender wobble and is capable of hauling a quite acceptable load.

From the information available to the reviewer, the model appears to be accurate and it certainly looks the part.

Altogether a very nice model which deserves to be popular with modellers of British prototype. It is competitively priced and gives other manufacturers of British prototype locomotives a standard of excellence to reach.

Graham Ahern.

NSWGR 40 Class Diesel Electric Locomotive Plan in H0 Scale by DATA SHEET, 21 West Street, Paddington NSW 2021. Plan for review supplied by the producer. Price $1.20.

The NSWGR 40 Class diesel electric locomotives were the first, hood type, mainline locomotive in Australia. The locomotives were constructed in Canada by the Montreal Locomotive Works, a subsidiary of the American Locomotive Company (ALCO) and were introduced between November, 1951 and April, 1952.

There is some disagreement between local writers as to which ALCO locomotive the 40 Class units were based on. The plan indicates that the 40 Class was based on the ALCO RS3 model while others claim that ALCO's RSC3 was the basis for the class. Kalmback's 'Diesel Spotter's Guide' states that there was little difference between the two types; the main difference appears to be in the wheel arrangement. The RS3 locomotives rode on 4 wheel trucks while the RSC3 locomotives rode on 6 wheel trucks. That would seem to place the 40 Class as a derivitive of ALCO's RSC3 class as the 40 Class had an AIA-AIA wheel arrangement. There is also some disagreement regarding the driving equipment on the locomotives. 'A Century Plus' states that the units could be driven in either direction while 'An Australian Diesel Locomotive Pocket Book' claims the units were single ended, being driven short hood first. Photographs of the 1953 Royal Train show 2 units coupled long hood to long hood — a clue that might indicate the units could be driven in either direction.

A number of minor alterations occurred over the years. The most noticeable was the change in paint schemes. As delivered the 40 Class were painted Brunswick green with yellow lining, this was later changed to Indian Red with chrome yellow lining. In 1953, 4001 and 4002 were painted royal blue with gold lining and were used to haul the royal train during the Queen's 1953-4 visit. This paint scheme was retained for some time after the visit.

Other changes occurred to the radiator air-intake grill, the stack, buffers and door vents. The grills were changed from a shutter type to an open mesh and at the same time the stack mounting was changed from the original to a transverse mounting. The door vents were also altered slightly. The units were delivered without any handrails and with individual buffers. A buffing plate was later fitted to a number 2 end in place of the buffers and some safety rails were also fitted.

The class was based at Enfield, in Sydney, and were used mainly on freight trains, on the northern and southern lines. 4017 was the first NSWGR locomotive to cover 1 million miles. While 4014 was the first of the class to be withdrawn following an electrical fire in 1968. 4001 is now in the RTM at Thirlmere.

The NSWGR 'traded-in' the remaining 40 Class locomotives to ALCO's Australian Agent A.E. Goodwin. Various parts from the class were used in the construction of the NSWGR 442 Class; this class was introduced in 1971. A.E. Goodwin sold 4006 and 4002 to Cliffs (W.A.) for use at their mining project at Robe River; the locomotives were renumbered 261-1001 and 261-1002.

The plan of the classleader is up to DATA SHEETS' usual high standard. It includes drawings of both sides of the locomotive — something that is important in diesel plans as one side is often different to the other. Drawings of No. 1 and No. 2 end are also included as are drawings showing the alterations to the No. 2 end and the radiator grill and door vent changes. A clear drawing — looking down on the loco is also included. To supplement the drawings two official photographs of 4001, as delivered, are included as well as some written information. The only discrepancy I could find in the plan occurred in the notes and was mentioned above in the discussion on the ALCO prototype, certainly a very minor error — if it is an error.

Stuart Livesay

Jouef Double-deck Suburban Carriages. H0 scale. Our sample supplied by Cyclops Industries Pty. Ltd. Price: Not known at time of review.

These carriages are of a double-deck design with some similarities in features to what has been produced locally. However these cars are considerably longer. They are intended for push-pull working with an electric locomotive. They have the standard of detail one expects from Jouef including tinted windows and seats in upper and lower decks.

There are three separate cars in the range, a driving trailer with streamlined front end, and two trailers, one Second class and one Composite.

Nice models of a specialist carriage which require a large layout to do them justice.

Graham Ahern.

"Locomotives Worth Modelling" by F.C. Hambleton. Published by Model and Allied Publications, Walford, England. Review copy from the agents, Thomas C. Lothian Pty Ltd Melbourne. Recommended retail price $10.25.

This book deals with a specialised topic. A reprint of a 1949 book with some changes it is a collection of details for British pre-grouping steam locomotives. The detail in this book would be impossible to collect now and I suspect that even in 1949 it represented a difficult task. These locomotives may not be everybody's taste as they are typical British small locomotives. The largest locomotive is the North Eastern Railway's No. 2116, a 0-8-0 goods engine, but many other locomotives are four-coupled.

Details of the Webb three and four cylinder compounds are interesting and give an insight into this unusual variant of steam locomotive operation. This book is a fascinating source of information about steam locomotive details although many Australian modellers may find the subject matter remote.

John Bevan.

Jouef BO-BO Electric Locomotive. H0 scale. Our sample supplied by Cyclops Industries Pty. Ltd. Price: $32.50.

This locomotive is a typical French double-cab design but has a very short bogie wheelbase of only 5'6". It is quite well detailed with very nice jumper cable mouldings, etc. The sample is finished in the fawn with orange and grey colour scheme for use with the double-deck suburban cars reviewed separately.

The model has its motor located in an inclined position on the driving bogie, an unusual but effective arrangement. The power bogie has four traction tyres and quite reasonable haulage capacity as a result.

Probably of limited appeal even to modellers of European prototype but nevertheless a nice model.

Graham Ahern.

GOOD NEWS FOR V.R. MODELLERS

With the sponsorship of the Victorian Model Railway Society, well known AMRM contributor Frank Kelly has organised a magnificent reproduction of the V.R. 1904 Rolling Stock Diagram Book. This volume, which for scarceness has hitherto made hen's teeth a bob a dozen, contains scale diagrams of the V.R. cars, wagons, vans, and locomotives to 1904. Some of Frank's construction articles have been about locos shown in this book. The book, by the way, contains some diagrams not published in the 1904 book.

Only 750 copies are being printed of this invaluable aid to those whose modelling takes in rolling stock from that era. Remember that much of that stock — for example, 'Y' locos — was still around in the 1950's and 1960's.

Our picture shows Frank checking the quality of the print run. AMRM was there looking on, and the news is that the quality is first class.

Mail your enquiry about obtaining a copy to Frank, care of 'Colortype Printing' Pty Ltd, 63 Parsons Street, Kensington, Vic 3031.

Ian Weickhardt.

MODIFYING LIMA PASSENGER CARS

Give that prototypical low-slung look to your commercial passenger cars by Jack Fotheringham

As soon as the Lima Indian Pacific cars came onto the market I bought a quantity and, after placing them on the track and having a good look at them, decided they needed some alterations to bring them into line with my other rolling stock. For one thing they appeared too high on the bogies. The following is the alterations I made.

I replaced the couplers with Kadee 5's and the wheels with (in my case) Central Valley 10.5 mm discs. Alternative wheelsets are Kadee, MGW or Berg's. After doing this I found that I would have to lower the height a little so, to rectify this, I lowered the actual frame of each bogie.

Firstly I removed the bogies from the cars by simply pulling them off. The bogies are attached by a delrin clip built into the pivot plate on the bogie. To take the bogie off or to put it on again is just a simple push/pull operation.

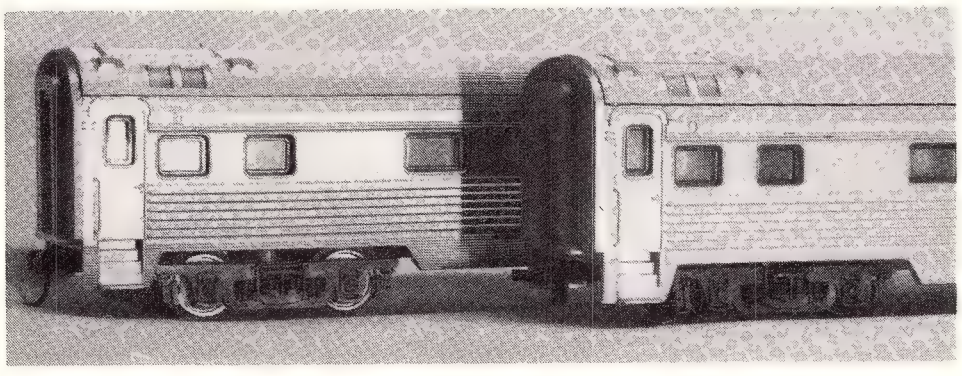
Once the bogie is removed cut off the bar containing the Lima type coupling, unless of course you wish to use the existing couplings. Once the bogie is removed, remove the wheelsets by gently spreading the bogie sideframes outward. The wheels will drop out. If you wish to use the existing wheels or have them turned down put them aside.

Having removed the axles and couplers place the bogie down on a flat surface in the same attitude as it would be on the car so that you are looking straight down on the bogie (see Fig. 1). You will note on the centre area a holding clip on the pivot plate with two holes either side of the holding clip. On each side of this plate (on the cross-brace of the bogie) is located two brackets per side (see Fig. 1). Using these brackets as a guide use a razor saw, or some other fine saw, and score a line around the bottom of the pivot plate, keeping it straight at all times. You will find that the plate will be about 1/16" thick. After you have scored the line right around the top start sawing, using the previously scored line, until the pivot plate is free of the bogie.
Smooth out saw marks with wet and dry abrasive paper until cut area is smooth.

Next, score a similar line around the top of the previously mentioned brackets each side then cut off and discard, as you won't need that portion again. It should be approx. 1/16". Again smooth until even.

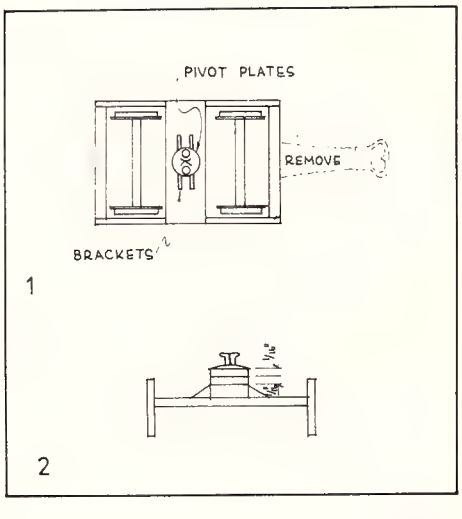
Now, place the plate back into position to ensure a square fit — if not, file slightly until square. The two holes in the pivot plate should be towards the side frames (see Fig. 1). Once you are sure that all edges are square the pivot plate can now be glued onto the frame. I used contact adhesive the first time but I found it unreliable, so I changed to Araldite. The best type to use is either the 5 minute type or the 24 hour type. First, mix up the quantity required and apply to the pivot plate and circle left above the brackets and place together, ensuring that all edges line up. Push them together firmly and leave to dry for about 10 minutes. When they are dry turn the bogie over and mix another small amount of Araldite and liberally apply it around the joint inside to give the Araldite a secure hold — set aside now to cure for 24 hours. After curing time has elapsed you can now replace the Lima axles or axles of your choice (if you use axles other than those supplied you may have to ream or drill the hole with a pin-vice to make the hole larger and deeper in the journal box to accommodate the longer axles). When axles are replaced the bogies are ready to be returned to the car body by just simply pushing the pivot clip into the hole provided, where it will lock home.

If you don't happen to like the idea of using Araldite then an alternative method is to make a brass plate big enough to cover the hole under the spacer piece of the bogie and drill two holes in it similar to the two holes in the pivot plate. Using a countersunk head 10BA thread screw and nut secure the plate below by putting the screw in from the top to hold the pivot plate, and through the corresponding hole in the brass plate. Secure with a nut. Repeat on the other side and you then have the bogie ready to be returned to car immediately.



The unconverted car is on the left. Notice the difference in height between it and the lowered car on the right.

On the left is the bogie as originally produced. The one on the right has been lowered and has had Kadee 36" wheels fitted.



N.S.W. WAGON COUNTDOWN — 7

In 1955, the N.S.W.G.R. had 9,918 'S' type four wheeled open wagons available for service. By 1978, only 2,814 vehicles of this type remained on the N.S.W.P.T.C. register.

Paul Rogers

EXHIBITIONS.

GEELONG — Victoria. January 26, 27, 28, 29, 1979 at the Waterside Workers Hall, Eastern Beach, Geelong. Open 1800-2200 (Fri), 1000-2200 (Sat), 1000-2100 (Sun), 1000-2000 (mon). Admission 80/30 or $2 (Family). Organised by the Corio Model Railway Club.

MELBOURNE — Victoria. March 9, 10, 11, 12 at Camberwell Civic Centre. Open Fri/Sat 1000-2200, Sun/Mon 1000-2000. Admission 90/40c. Organised by the Australian Model Railway Association, Victorian Branch.

MARKET PLACE

PRIVATE: 15 words for $1.00, extra words 5 cents each. Minimum $1.50 per insertion. Advance or continuous insertions not accepted.
COMMERCIAL: $1.25 per line, minimum of $6.00. Advance continuous insertions not accepted.

All monies must accompany copy, which must be clearly written on paper. Definately no phone insertions accepted. If stamps are used as part payment, each stamp must not exceed the standard postage rate, and must not be attached to any paper.

Send all copy and payment to SCR Publications, PO Box 235, MATRAVILLE, 2036.

FOR SALE

BING steam 0-4-0 and tender good, Electric 4-4-0 and tender, opening door carriages good, Hornby LMS clockwork set excellent in tatty box complete. Want motors spark diesel GLO compressed air marine or air cooled complete or parts. Model magazines Flying Aces Airtrails. Ivor F. Box 11, Doonside (02) 622 2140.

SELL or exchange. 15 brass Interurbans including Pacific Electric Niles, Blimps, Portlands, 1451's, 1370/70's by Ed. Suydam plus Nth Shore steeplecab, Illinois Terminal 3 car Streamlined by Soho. Exchange considered on H0 gauge/scale Shays, Climax, etc or any 0n2/0n3 equipment. Offers to Col Rough (02) 601 7906.

WILLS Finecast loco body kits, GWR Hall, Prarie, King, Star, 94XX 1804ST metro tank, boxed kits, $150 or will separate, phone or write to G. Ledger, Horans Lane, Grose Vale, NSW 2753. Ph (045) 72 1232.

H0n3 equipment for sale as follows. Westside K37 DRGW Mikado two also one each brass DRGW No. 318, Colorado and Southern No. 9. Pacific traction handbuilt individually numbered car bodies DRGW/RGS/C & S box 8 gondola 8 stock 6 reefer 1 DRG caboose 1 RGS 1 also Shinohara track H0n3 two turnouts 7 yards dual gauge 2 turnouts 4 yards track. $1050 ono secures with insurance air freight within Australia. Murphy Mt. Newman Mining Port Hedland, WA 6721. Ph (091) 73 8106 or 73 1496 evenings.

Continued on page 62.

SOUTHERN CROSS MODEL RAILWAY ASSOCIATION

Secretary: Trevor Moore.
Membership Enquiries:
P.O. Box 84,
Miller. N.S.W. 2168.

DIVISIONAL REPRESENTATIVES:

Queensland:
Peter Kelly,
8 Moorhouse St.,
Bald Hills, 4036.
Ph: (07) 2611512

New South Wales:
George Giraldi,
322 Elizabeth Dr.,
Mt. Pritchard, 2170.
Ph: (02) 602 3117

Victoria:
Herb Drury,
39 Allanfield Cres.,
Boronia, 3155.
Ph: (03) 321 2649

The Annual Membership fee for the S.C.M.R.A. is $6 from March to February and $4 Joining fee.

Membership entitles you to participate in the activities of the Association, to receive A.M.R.M., our newsheet Booster. Standards, Recommended Practices and Information Sheets covering model railway practice are included in the joining kit and are issued at regular intervals.

For further details write to the secretary or contact the Divisional Representatives.

MODEL SHOPS & TOY STORES

The LITTLE TRAIN

Wooden three-piece pull-along

Based on the Dandenong's famous "Puffing Billy" and other narrow gauge trains.

ENGINE – TRUCK – CAR
(54 cm in length)

Sturdy pinewood Boxed and poly packed.

About
$5.95
RRP

*Available from –

EMERALD GAZETTE
(CHI PRODUCTS)
4 View Street,
Upwey, 3158.
(03) 754 3118

A CHI Product

BACK ISSUES

The following issues are available subject to prior sale:-

No. 1 — April/May 1963 (Reprint)
No. 39 — July/August 1969
No. 40 — September/October 1969
No. 41 — November/December 1969
No. 42 — January/February 1970
No. 43 — March/April 1970
No. 44 — May/June 1970
No. 45 — July/August 1970
No. 50 — May/June 1971
No. 53 — November/December 1971
No. 54 — January/February 1972
No. 55 — March/April 1972

All the above are available at the price of 45c each, including post and packaging.

No. 74 — September/October 1975

Issues 71 to 74 are available at the price of 55 cents each, including post and packaging.

No. 78 — May/June 1976
No. 79 — July/August 1976
No. 80 — September/October 1976
No. 81 — November/December 1976

Issues 78 to 81 are available at the price of 65 cents each, including post and packaging.

No. 82 — January/February 1977
No. 83 — March/April 1977
No. 84 — May/June 1977
No. 85 — July /August 1977
No. 86 — September/October 1977
No. 87 — November/December 1977

Issues 82 to 87 are available at the price of 85 cents a copy, including post and packaging.

No. 88 — January/February 1978
No. 89 — March/April 1978
No. 90 — May/June 1978
No. 91 — July/August 1978
No. 92 — September/October 1978
No. 93 — November/December 1978

Issues 88 to 93 are available at the price of $1.05 a copy, including post and packaging.

Please nominate a second choice, in case of non-availability of the required issue.
Please list issues required on a sheet of paper separate from any other matter.
If including stamps as part payment, please keep face value of stamps at the standard postage rate (18 cents) or less.
Please allow at least 21 days for the delivery of goods.

Post Your Order to:

SCR PUBLICATIONS
P.O. Box 235,
MATRAVILLE. N.S.W. 2036

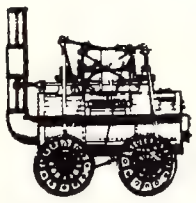
RAILMAG SERVICES 'SELLS'

BACKISSUE RAILROAD MAGAZINES

Stocks include:- Model Railroader, Railway Modeller, Trains, Aust. M.R. Magazine, R.M.C. etc.

We also buy magazines. See advert Sept/Oct '78 AMRM.

P.O. Box 174. MILLER
N.S.W.
Tel. (02) 601 7906



When it's **Electronics** for Model Railways it's **Locomotion**

Why look elsewhere when Locomotion manufactures high quality electronic devices and accessories for model railways.

We suggest a CAPACITOR DISCHARGE unit to fire points that are sluggish or sticky. No more point motor burnouts with this unit even if the firing button sticks down. Only one unit required per layout. Excellent value at $16.65.
We have press buttons for points valued at $1.65 for pkt of 4.

See all our products on display at:
CASULA HOBBIES & NEWSAGENCY
Shop 7,
Demeyrick Ave & Hume Hwy,
CASULA (02) 602 1348

Send SAE for your free catalogue or pick one up from your nearest Locomotion stockist.

Trade enquiries to
LOCOMOTION 14 Jennifer Crescent, THIRROUL 2515.

A SUBSCRIPTION TO A.M.R.M. ENSURES YOU A COPY OF AUSTRALIA'S MAJOR MODEL RAILROAD MAGAZINE

RECEIVE YOUR COPY HOT OFF THE PRESS. KEEP YOUR LOCAL POSTMAN IN WORK.

A years subscription (6 issues) costs $7.00 or $9.70 posted overseas.

Providing that the application for subscription is made at the AMRM office 4 weeks before the publication of the next issue the first magazine of the subscription will be the next issue, failing that the issue after. Receipts are not issued although acknowledgement of receipt of subscription will be given if a S.S.A.E. accompanies the subscription..

Subscriptions are not back dated.

Subscriptions are for one year only.

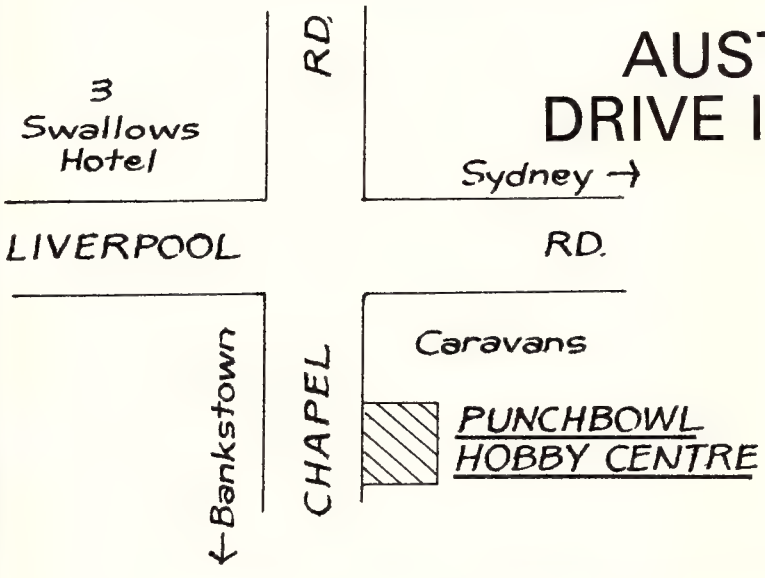
Subscribers are advised upon the expiry of the subscription. Please do not send money in anticipation of expiry.

SEND YOUR MONEY
NOW
TO
S.C.R. PUBLICATIONS,
P.O. BOX 235, MATRAVILLE,
N.S.W. 2036

Please make all money orders payable to Matraville.

Punchbowl Hobby Centre

545 CHAPEL ROAD, BANKSTOWN



SPECIALISING IN MODEL TRAINS

OPEN THURSDAY NIGHT & SATURDAY AFTERNOON
9.00 am to 6.00 pm Monday to Friday

CAVALCADE MINIATURES
ANNOUNCE A NEW RANGE OF WHEELS
MANUFACTURED IN AUSTRALIA

* * *

AVAILABLE IN THESE SIZES:

9mm DISC, 9 SPOKE, 8 SPOKE

10.5mm DISC, 8 SPOKE

14mm DISC, 9 SPOKE

10mm DISC, 9 SPOKE, 8 SPOKE

12mm 8 SPOKE, 3 HOLE DISC

* For release soon. Brass Bearing Cups, Loco Driving, Poney and Tender Wheels

THESE WHEELS HAVE SHOULDERED STEEL AXLES WITH PIN POINT BEARINGS, STEEL TYRES WHICH ARE PRECISION TURNED AND PLASTIC CENTRES.

THEY ARE ON SALE FROM GOOD MODEL SHOPS THROUGHOUT AUSTRALIA, BUT IF YOU HAVE DIFFICULTY IN OBTAINING SUPPLIES, WE WILL BE GLAD TO SUPPLY YOU DIRECT AT 70¢ per PACKET OF 2 AXLES

PLEASE SEND YOUR REMITTANCE PLUS 45¢ FOR POSTAGE AND PACKING TO:

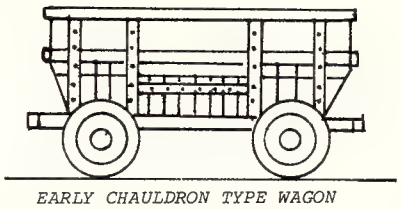
VENTURE HOBBIES
7 DALE CRT, DANDENONG, VICTORIA 3175
TRADE INQUIRIES WELCOME
(No Callers Please)
* * *

(Advertisement)

Coal and Mineral Wagons

by John Thomas

The earliest type of wagon used for the haulage of coal was the chauldron type. First pulled by horses and later controlled by cables hooked up to steam winches they were used by collieries that were located near the point where the coal load could be transferred to ships for transport to other places. In many places the wagons were run on rails placed on a gradient so that loaded wagons could gravitate down to the unloading point while the empties were hauled back to the top by horse or steam powered cable.



EARLY CHAULDRON TYPE WAGON

Although privately owned, in the early days, these wagons were unpainted and did not have any lettering on them. In later days the initial letters of the owners names were painted on the sides.

During the early days of building the British railways and the ensuing 'railway mania' coal traders soon found they had a new means of transporting their merchandise. The first private owner wagons as distinct from the chauldron type appeared about 1860. These were the ones on which the owners painted their names, details of the goods carried and so on. These private owner wagons were the forerunners of upwards of 650,000 private owner wagons which were to be in use on British railways 50 or 60 years later.

Some of the more interesting examples of the private owner wagons had mixed buffers, sprung buffers at one end and fixed dumb buffers at the other. The earliest examples had only the initials of the colliery on which they were based painted on them. The coal merchants wagons were much more easily identified as they painted on their full names, their places of origin, the types of coal handled and so on. Advertising slogans and emblems were used to decorate the wagons and such things as towers, diamonds, discs and other patterns were not uncommon.

Wagons were of 6, 6½ and 7 ton capacities to start with and gradually grew until a larger 10 ton capacity wagon became the virtual standard.

Many of the private owners used their wagons as mobile warehouses. At ports and other places where coal was handled miles and miles of railway sidings were filled with private owner wagons waiting to be unloaded.

The private owner wagons were used throughout the British rail system but particular names generally were confined to specific areas of the country although odd ones did appear anywhere in the system. This is an important point for anyone considering the use of private owner wagons on a layout based on a British prototype of the pre-nationalisation era. Some research may be needed to ensure that the wagons used are relevent to the area modelled.

Private owner wagons became widely scattered during the 1939-45 war and although private owner wagons were built as late as 1945 the use of these wagons was banned in 1948 except for non-pool wagons used for lime, cement etc.

Of course, while all these private owner wagons were running around British railways and cluttering up the sidings, there were also the many thousands of similar wagons owned by the railway companies themselves.

It is apparent therefore that anyone who models British prototype of a pre-nationalisation period must have a strong representation of private owner vehicles as upwards of half the total number of goods wagons in traffic were of the private owner variety.

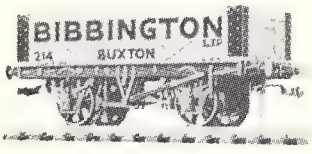
The well known British manufacturer Peco has a range of Wonderful Wagon Kits modelled in 4mm to the foot scale which is comprised of a number of private owner wagons. These wagons which can be assembled in about 20 minutes have finely detailed under frames, sprung axle boxes and so on with full colour sides and ends which faithfully reproduce the colour schemes of the original wagons. Listed below is part of the Peco range which covers those wagons that can be used in the coal or other mineral traffic on the layout. The wagons listed are all priced at a recommended retail of $4.50 each.

1404 (R-54M)

COAL WAGONS - 7-plank
1404 (R-54M) Mosely - Body upper and lower planks light grey, middle planks red, corner brackets black, lettering white.
1405 (R-54E) Emlyn - Body and strapping green, corner plates black, yellow lettering.
1406 (R-54P) Pinxton - Body all black, lettering white shaded red.
1407 (R-54N) Newbattle- Body all black, lettering white shaded red.
1408 (R-54K) Kingsbury - Body mid-green corner plates and strapping black, lettering white.

MINERAL WAGONS - 5-plank
1424 (R-70T) Tarmac - Body all black, lettering white.
1425 (R-70B) Bibbington - Body and strapping stone, corner plates black, lettering black.
1426 (R-70D) Dunsdon -
1427 (R-70DS) Derbyshire Stone - Body all black, lettering white.
1428 (R-70DN) Dixon - Body red-oxide, strapping and corner plates black, lettering white.

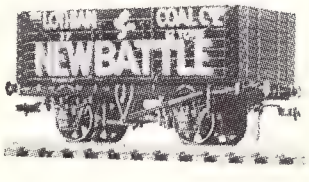
1425 (R-70B)



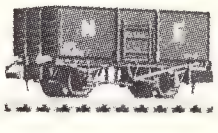
1444 (R-62PG)

LOW SIDED WAGONS - 3-plank
1444 (R-62PG) Pwllheli - Body all black lettering white.
1445 (R-62BC) Blaenavon - Body all brown, lettering black.
1446 (R-62FM) Field & McKay - Body and strapping brown, corner plates black, lettering white shaded red.

1407 (R-54N)



The well known British kits from Ratio also include some wagons for the coal and mineral traffic on your British layout. The three kits mentioned have a recommended retail price of $2.50 each. These kits need a little more work to complete than the Peco kits but they give a beautifully detailed model to the careful builder. These Ratio kits are as follows:
5064 G.W.R. 5-plank open wagon with correct pattern underframe and brake gear, Triang/Hornby type couplers with provision for fitting of other types. The kit includes water slide transfers sufficient for six vehicles.
5071 L.M.S. Bogie Ore Wagon, ex-Caledonian Railways. This was one of the relatively few bogie wagons used in the earlier days of British railways. Supplied with Triang/Hornby type couplers.
5073 L.M.S. 3-plank Open Wagon with parts to make early non-fitted version or B.R. fitted version. Triang/Hornby type couplers are supplied with these kits and provision is made to fit other types.



3412 (NR-44E)
3421 (NR-40M)
3401 (NR-41M)

LOCOMOTIVES & ROLLING STOCK

3426
(NR-P83)

3423
(NR-P80)

3407
(NR-P90)

COAL & MINERAL WAGONS (Continued)

Modellers of the British rail scene in N gauge have not been for - gotten. Peco has a range of ready-to-roll wagons lettered for the railway companies as well as a selection of private owner types. Some wagons are also available in kit form. With a recommended retail of $2.50 for the railway company wagons and $2.75 for the private owner wagons. These wagons represent quite good value in their ready-to-roll form.
The ready-to-roll list is as follows:
MINERAL WAGONS - 5-plank
3421 (NR-40M) L.M.S.
3422 (NR-40W) G.W.R.

COAL WAGONS - 7-plank
3402 (NR-41S) S.R.
3401 (NR-41M) L.M.S.

COAL WAGONS - Steel Type
3411 (NR-44W) G.W.R.
3412 (NR-44E) N.E.

Private owner types are:
MINERAL WAGONS - 5-plank
3423 (NR-P80) Garswood
3424 (NR-P81) Mendip
3425 (NR-P82) Gresley
3426 (NR-P83) Dunsdon

COAL WAGONS - 7-plank
3405 (NR-P91) Parkend
3406 (NR-P92) Kingsbury
3407 (NR-P90) Ward

COAL WAGONS - Steel Type
3403 (NR-P100) Charringtons
3404 (NR-P101) Denaby

Wagons in kit form are available at $1.35 for No. 3409 (KNR-42) a 7-plank open wagon and No. 3409 (KNR-44) a steel sided open wagon. The 5-plank open wagon No. 3429 (KNR-40) is priced at $1.55.

Unfortunately the modeller who wishes to model Australian prototype railways has very little available to him in the ready-to-roll market. Some limited production kits have become available but, overall the modeller of Australian railways is left very much on his own. Many vehicles available to British, European and American outline have a passing resemblance to similar type vehicles in use at one time or another on one of the Australian rail systems and the modeller must decide for himself if he is prepared to accept the differences and be content with a simple paint job or whether he will carry out some sort of partial or complete rebuild.

In America where railways were not plagued with thousands of small private owner wagons and a restrictive loading gauge and because of the long distances travelled, the small 4-wheel wagon was soon replaced by the larger capacity bogie wagon.

In looking at the available wagons suitable for the carriage of coal and mineral ores we find many different type and capacity hopper, large specialised ore cars and high sided gondolas. Gondolas are a more or less general purpose vehicle with a flat floor which can be used to carry many different types of load but are often pressed into service to carry coal and other minerals.

A large number of kits for different types of gondola and hopper cars is available from an American manufacturer and sold under the Roundhouse label. The vehicles which I consider to be suitable for use in the carriage of coal etc. are listed.

GONDOLAS, 40 foot standard type.
1342 Santa Fe
1343 Sthn Pacific
1344 Union Pac.
1345 Pennsylvania
1347 G.N. Black
1348 G.N. BigSkyBlue
1349 Penn Central
1351 Rock Island
1352 Conrail

SHORTY ORE CARS with taper sides
1401 Unlettered
1405 D. & R.G.W.
1406 Canadian Pac.
1409 Pennsylvania
1410 Gt Northern
1411 Soo Line
1412 C.N.W.
1413 Lake Superior & Ishpeming
1414 Sthn Pacific
1415 Burlington Nthn

SHORTY ORE CARS with rectangular sides
1402 Unlettered
1419 Rock Island
1420 Gt Northern
1421 Duluth Missabe & Iron Range
1423 Milwaukee
1424 Union Pacific
1425 G.N. Big Sky Blue
1426 Penn Central
1427 B. & O.
1428 Santa Fe
1429 Union Pacifc (silver)

3-BAY HOPPERS (6 Bin)
1485 Unlettered
1486 Wstn Maryland
1487 Sthn Pacific
1488 Pennsylvania
1489 Virginian
1490 Norfolk & Western
1491 Santa Fe
1492 Conrail
1493 D. &. R.G.W.
1494 Union Pacific
1495 C. & O.
1496 B. & O.

3-BAY OFFSET SIDE HOPPERS
1610 Undecorated
1613 Nickel Plate Road
1615 New York Central

All the wagons in the above list are priced at $3.75. The ore cars in the following list are priced at $4.50.

ORE CARS, 26ft HIGH SIDE
1701 Undecorated
1702 Southern Pacific

ORE CARS, 26ft LOW SIDE
1711 Undecorated
1712 Southern Pacific
1713 Union Pacific

Ratio
5071

Special high capacity gondolas and hoppers have been developed to meet the needs of special areas and loads. One of these types is the Thrall high sided gondola. Several of these under different road names are to be found in the Roundhoue range priced at $5.75. The list is as follows:
1640 Undecorated
1641 Commonwealth Eddison
1643 Union Pacific
1644 Rio Grande
1647 Peabody Coal
1652 Santa Fe

From the Italian manufacturer Rivarossi there are also several American type gondolas and hoppers offered. These are No. 2250 Union Pacific Gondola at $5.75; No. 2254 Boston & Maine Gondola also at $5.75. No. 2306 is a hopper car with the SOO road name and costs $6.95. An old time gondola for the Virginia and Truckee is $4.95 and numbered 2313. Number 2348 is another old time gondola lettered for the A.T. & S.F. and priced at $6.25. In kit form the Southern gondola is number 12245 costing $4.00 and the Peabody Hopper is number 12260 at $5.75.

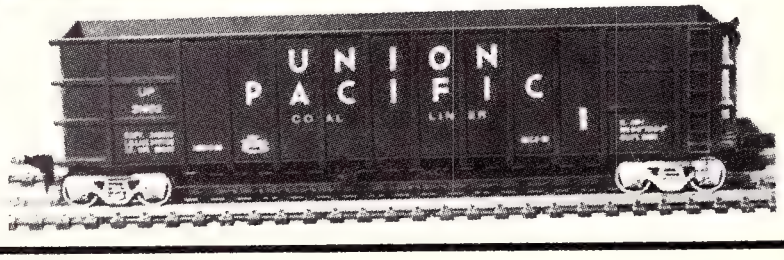
Rivarossi also make a range of Continental style vehicles of which Numbers 2083, an open wagon type "E" and 2085, a low sided wagon type "P" are but two examples. These two wagons are $4.25 each.

Rivarossi also provide vehicles for the N gauge modeller. These are $3.25 each and the road names are as follows - Gondolas 9330 2401 Boston & Maine, 9331 2402 Union Pacific, 9332 2403 Central New Jersey and 9333 2404 Southern; Hoppers - 9335 2421 Clinchfield, 9336 2422 M. & St. Louis, 9337 2423 Canadian National and 9338 2424 Erie. The two numbers given are, first the current Rivarossi catalogue number and the second is the old number which we find easier to remember.

Well there you have it. A large percentage of the goods carried on a railway is represented by the coal and other mineral ore traffic. No railway is complete without a large number of open wagons and hoppers to carry this major source of railway income.

The wagons shown above are distributed by Australian Model Craft Co. whose address is 577 Dean Street, Albury, N.S.W. (P.O. Box 118,) 2640. and are available from good hobby shops everywhere. Prices shown are recommended prices only.

Roundhouse
1643



ONE OF QUEENSLANDS LARGEST RETAIL STOCKISTS OF BOTH HO GAUGE AND N GAUGE ELECTRIC TRAINS AND ACCESSORIES.

VALLEY TOYLAND and HOBBY CENTRE

OUR RANGE COVERS:–
HO GAUGE, LIMA, RIVAROSSI, JOUEF, BACHMANN, LIFELIKE, TYCO.
N GAUGE, ATLAS-RIVAROSSI, MINITRIX, LIFELIKE, PECO, BACHMANN, LIMA.

SOME OF OUR KITS:–
KIBRI – POLA – VOLLMER – VAU-PE – JOUEF – AIRFIX – LIFELIKE – RATIO – ROUNDHOUSE – TYCO.

CUSTOMER SERVICE IS OUR AIM – IF WE HAVENT GOT IT, WE WILL TRY TO GET IT!

CALL IN AND SEE OUR RANGE. REPAIRS GLADLY DONE.

VALLEY CENTRE PLAZA, BRUNSWICK ST. 4006 Ph. 521005

Model Trains and accessories at big Discounts

TRAINWORLD HOBBIES

MAIL ORDER SPECIALISTS

Are specialists in Marklin and offer this expert knowledge to all Marklin lovers

A large range of genuine Marklin spare parts is supplied direct from the manufacturer

We carry out specialised repairs to all Marklin equipment and perform Marklin two-rail conversions at low prices
An extensive range of used Marklin equipment is carried, as are also supplies of discontinued items which are in great demand — write for details
We offer big discounts and suggest you try us first for the very best deal — remember — it will only cost you 20¢ and may save you many dollars
Other equipment carried includes — Vollmer, Peco, Rivarossi, Roco, Kibri, Pola, AMC and AMRI Products, Locomotion, Minitrix, Marklin 2-rail DC, HO and N Gauge where applicable

Applications taken for subscription to the Marklin Magazine

Ring (04)625 5861 or (04)625 1745 for information or write to: PO Box 490, Campbelltown 2560 for further information Inspection by appointment only

SPECIALS . . .

PROTYPE – 15% off r.r.p. * ROCO/ATLAS H0 USA diesels with fly wheel & 5 pole motor $28.50 * PIKO H0 – 20% discount – new catalogue $2.50 posted * TEMPEST AP7000 AUTOPULSE THROTTLE $31 (save $4.16).

New DISCOUNT PRICELISTS will be available late December at $1 posted – send cash, stamps, cheque, postal note. Contains big discounts on PECO, ATHEARN, ROUNDHOUSE, LIMA, KADEE, MODELPOWER, SHINOHARA, BACHMANN, LIFE-LIKE, VOLLMER, KIBRI, HELJAN – over 20 major brands.

RAILMAIL P.O. Box 152, Wellington, 2820.

HEAVY METAL

Heavy for greater traction.
All metal for maximum weight; Large five pole motors for power; Complete, full kits for value; Even brass castings for superdetail; That's BOWSER all metal, American made locomotive kits –

Write for details – Most kits now in stock.

Also Arbour Models and Cary boilers. We import Walthers items, AHM parts.

TRAINS AND TRACK
P.O. Box 177, Applecross.
W.A. 6153 (09) 457 6840

Minitrix
Arnold
Grafar
Peco
Lima
Bachmann
Life Like
Model Power
Piko
Etc.

mainly MENTONE

Pola
Herba
Kibri
Faller
Builder Plus

and PIKO TT

THRIFT PARK TOYS

16 Lr Dandenong Rd., MENTONE 3194
Ph (03) 93 4282
Victoria

THE MODEL RAILWAY CENTRE

The MECCA for MODEL RAILWAYS South of the City of SYDNEY.

Our HO & OO range includes:
PECO — RIVAROSSI — HORNBY — LIMA — MODEL POWER — MEHANOTEHNIKA — WRENN — JOUEF — TYCO — PIKO.

Our N range includes:
PECO — ARNOLD — MINITRIX — RIVAROSSI — PIKO.

Our range of kits include:
VOLLMER — POLA — HELJAN — KIBRI — FALLER — SUPERQUICK — VAU-PE

Plus:
KALMBACH BOOKS & MAGAZINES — A.M.R.I. Products — A.M.C. Products — LOCOMOTION Products — AIRFIX KITS — M & J DECALS — HUMBROL PAINTS.

REPAIRS **LAYBYE** **BANKCARD**

555 KINGSWAY, MIRANDA. 2228. Phone (02) 524 8855

TRADING HOURS
Monday to Friday; 9 am to 5 pm
Saturday: 9am to 12pm.
Open Thursday Evenings.

YAGOONA MODEL RAILWAY CLUB

CELEBRATES
ITS TWELTH BIRTHDAY

WITH
A GREAT TWO FLOOR EXHIBITION

at the
MASONIC HALL
Station Street, AUBURN NSW
(Near Police Station)

On the following dates and times:
Saturday 27th January 1979 — 10 am-10 pm
Sunday 28th January 1979 — 11 am-6 pm
Monday 29th January 1979 — 9 am-5 pm

ADMISSION: Adults 75¢; Children/Pensioners 25¢
Under Five Free

CHI

AUSTRALIAN MODEL MEDIUM
ASK FOR
CHI

- **SCATTER** — (Aussie colours, mate!)
- **PLAN SHEETS**
- **AUSTRALIAN SIGNS**
- **FIGURINES** — now improved — new molds — new figures — lower prices.

★★★ **PLAN SHEETS:**
Pad of 50 $5.40 Post Paid.

A WORD ABOUT Emerald Gazette — CHI Products & Imports.

The American scene is a familiar and well-followed theme with Australian modellers. Our **SELECTED IMPORTS** are bought with the discerning modeller in mind who requires something with a little more character than can be obtained with less-substantial plastic kits. **ALTERNATIVELY,** in order to cater for the ever increasing Australian prototype modeller, the imported components are selected to fill in (and quite adequately too) for the gaps in our local production scene.

We especially recommend —
MODEL MASTERPIECES LTD — In AUSTRALIA.

TIMBERLINE MODELS are now included in the Model Masterpieces range. See Walthers Catalogue '78.

Please **WRITE** for your illustrated product sheet (20c — a stamp will do) and Australian price list (free) enclosing of course your S.S.A.E.

ATTENTION!
STOP PRESS!
NEW SALES & PRICES POLICY FOR M.M. ITEMS.
SPECIALS & SCRATCH BUILDING PARTS ONLY, AVAILABLE THROUGH AGENT RETAILERS. OTHER INDIVIDUAL MODELS DIRECT FROM EMERALD GAZETTE - CHI PRODUCTS ONLY.

MR RETAILER! You too can mail-order from us on behalf of your customer. Try our No Carry — No Cash Plan. Just send the order plus your customer's cheque and we'll mail direct to him and reply to you separately. Saves all the hassle.

CHECK THESE DETAILS: See A.M.R.M. Issue No. 90, for full list of products, & No. 91, for "SPECIALS". See June & August (US) Model Railroader, and Sept. Aug. Model Retailer (US), and Sept. "Narrow Gauge & S.L. Gazette" for other information.

HETCH HETCHY
Selections — Cat. Diesel & 2-reel Hoist. New stocks to hand.

We accept BANKCARD —

Emerald Gazette,
(CHI Products)
4 View Street,
Upwey, Vic. 3158.

AUSTRALIAN AGENTS

SHOWROOM
SUITE 103
1st FLOOR
MACDONELL HOUSE
321 PITT STREET
SYDNEY — PHONE 211 2171

PO Box 527,
MANLY — 2095
AUSTRALIA
PHONE (02) 94 3280

SEND $2.00 FOR GIANT L.G.B. COLOUR CATALOGUE AND YOUR L.G.B. DEALERS ADDRESS

Obtain **ARNOLD 'N'** at discount prices. Send S.S.A.E. for price list, or $1 for Catalogue and price list.

TOPPS TRAINS MAIL ORDERS,

P.O. Box 313,
CIVIC SQUARE,
A.C.T. 2608

R. & A. MEARS

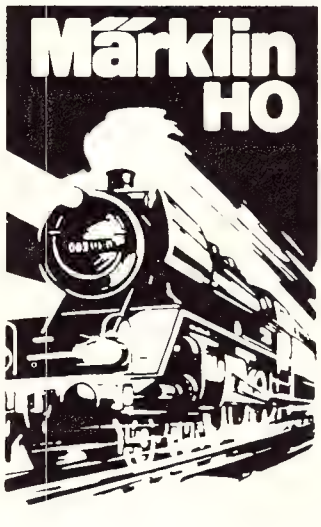
MODEL MAKERS & SUPPLIERS

Stockists of Plans, Books, Castings, Nuts, Bolts, Rivets, Materials and accessories for the Live Steam Constructor and for Scratch Building.

Send for Catalogue and Price List to:-

P.O. Box 85,
PADSTOW. 2211
N.S.W. Australia.
Telephone 02 773 3838

SEARLE'S
ESTD. 1897



Full stocks of Marklin always available, also HAMO 2 rail 12v D.C. Marklin locos.

Mail Order Specialists

Shop C6 Wallaceway, Chatswood, N.S.W. 2067 Phone (02) 412 4238

STEAM RAILWAY RECORDINGS.

STEAM ACTION PRODUCTIONS

P.O. BOX 75, ORMOND 3204

PRICE CHANGES. 1st October, 1978.

To bring prices in line with inflationary costs over the years (since July 1976), we have increased the items in our catalogue as follows:

Cat. No.	TITLE	Price inc postage
SAP-001	Steam Panorama 1st Division	$5.00
SAP-002	Steam Panorama 2nd Division	$5.00
SAP-101-S	Puffing Billy in Stereo	$2.00
B-2477	Power on the Move	$7.00
B-5051	Helper Service	$7.00
25/5531	"R" for Hudson	$6.00
WL-001	Sounds of Steam Railroading	$7.00
WL-002	The Fading Giant	$7.00
WL-003	Thunder on Blue Ridge (Stereo)	$7.00
WL-004	2nd Pigeon & the Mocking Bird	$7.00

NOTE. W & G are no longer producing records, therefore, stocks held of: B-2477, B-5051, 25/5531 are the final copies available. Further, WL-001, WL-003 and WL-004 are temporarily out of stock and new supplies are expected in December.

Casula Hobbies

Casula Newsagency
Shop 7,
Demeyrick Ave and Hume High
CASULA
Phone (02) 602 1348

OPEN
Mon, Tues, Wed 7pm
Thurs & Friday 8pm
Sat & Sunday 5pm

KADEES
No. 5 $2.40 pkt.

BRASS
79 CLASS
$75.00 ea

CHRISTMAS SPECIALS

KADEE Couplers
H0
and BOGIES
with Aust. Kit.
$2.50 per kit.

PECO POINT
MOTORS PL10
$2.50 ea.

LAY-BY TAKEN.

H and M

CLIPPER	36.50ea
DUETTE	49.50ea

LOCOMOTION

THROTTLE CONTROLER	39.95ea
TWINETT CONTROLER	39.95ea
LOCO METER PANEL	32.00ea

WRENN.

IN STOCK

W2207 0-6-0 TANK S.R.	22.80
W2233 0-6-0 DIS-ELECTRIC L.M.S.	42.80
W2225 2-8-0 FREIGHT L.M.S.	65.90
W6005 PULLMAN CAR B.R. BLUE	12.45
W6004 PULLMAN CAR B.R. BLUE	12.45
W6003 PULLMAN CAR B.R. BLUE	12.45
W5001 FISH VAN ROSS	5.50
W5003 6 WHEELED WAGON GUINNESS	7.45
W5012 PARCELS VAN	5.50
W5013 6 WHEELED WAGON ST IVEL	7.45
W5020 BULK GRAIN KELLOGS	5.50
W5025 ORE WAGON "CARTER"	4.95
W4311P GUARDS VAN L.M.S.	4.50
W4655 16 TON MINERAL WAGON	4.95
W4658 PRESTWIN WAGON "FISONS"	6.55

LIMA.

24 ASS LOCO	15.95 ea
ASS ROLLING STOCK	@ 2.00 & 4.00 ea
DISCOUNT ON ALL ASS. AND SETS.	
lima 44 class	25.50 ea
lima C38 loco	45.00 ea

JOUEF.

5610 pullman car	3.00 ea
6270 4 wheel wagon	2.60 ea
6261 4 wheel wagon	2.60 ea
FRENCH ELEC. LOCO	11.95 ea

RIVAROSSI "N"

9131 USRA PACIFIC	46.50 ea
9133 MIKADO 2-8-2	49.50 ea
RIVAROSSI "H0"	
1254/2 BIG BOY	120.00 ea
1211 RENO V.&T.	45.75 ea
1212 Genoa V.&T.	45.75 ea

ARNOLD RAPIDO "N"

6381 Automatic Turntable 8½" diameter	89.95 ea

MODELPOWER LOCOS FROM 17.00 ea

2-6-2 black loco	27.50 ea

M.R.C. KITS

6 car CUB set	40.00 ea
MHG VAN	6.90 ea
"S" Wagon	3.50 ea

PROTYPE KITS

"S" Wagon	
Z Van	9.95 ea
LCH	5.95 ea
BDX	9.95 ea
BCW	9.95 ea
BHG	9.95 ea
VLX	9.95 ea
BX	9.95 ea
WGX	9.95 ea
PV	5.95 ea
SRC	5.95 ea
CV	5.95 ea
Z19 LOCO	50.00 ea

ACCESSORIES

DYNAMO.
BATTERIES.
WATER HATCHES.
COACH BRAKE. GEAR.
LOCO PUMPS. G
GOODS PUMPS.
CIRCUIT BOARD.
MODERN COACH BUFFERS
LOCO BUFFERS
ROOF VENTILATORS
KNUCKLE COUPLERS.
TORPEDO VENTS.
ALL ABOVE ARE 0.45 ea pkt.

FRIEDMONT MODELS KITS

40 class	
42 class	
422 class	9.75 ea
45 class	
46 class	

ROLLING STOCK

LHO	6.00 ea
VHX	
LLV	
GHG	
JHG	6.00 ea
FHG	
WVX	
JLX	
TRC	
BWH	
BCH	
RUB "A" SET	24.55 ea
RUB "B" SET	24.55 ea
HUB SET	24.55 ea
OHG	6.00 ea
BUB	6.00 ea

ATHEARN

1851 SANTA FE STD. R. ROOF COACH KIT	8.95
1871 SANTA FE STD. R. OBSERVATION KIT	8.95
1861 SANTA FE STD. R. PULLMAN KIT	8.95
1841 SANTA FE STD. R. R.P.O. KIT	8.95
1856 SANTA FE STD. R. CLERESTORY ROOF	8.95
1811 SANTA FE STD. SL COACH KIT	8.95
4161 FW SD-45 SEABOARD DIESEL	28.00
3483 U-33-B SEABOARD DIESEL	22.50
3442 U-33-B ILLINOIS CENTRAL	22.50

LILIPUT CATALOGUE $3.00 ea.

PECO H0

Flexible track SI 100X nickel silver 25 in box for 48.50 or 2.00 ea. only till XMAS.

PECO N

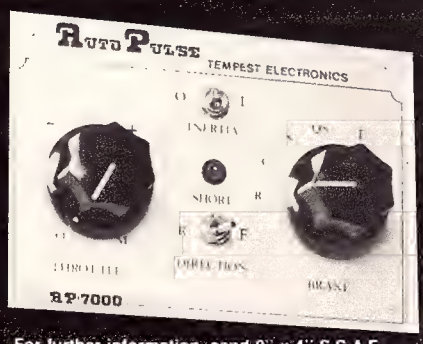
SL-300X nickel silver 25 in box for 39.50 or 1.80 ea.

FOR CASH ONLY GIVE-A-WAY.

LILYPUT. 4501 2-10-2 BR45. flywheel	189.00
LILYPUT. 4502 2-10-2 As 4501 but in grey	189.00
LILIPUT RHEINGOLD 5 CAR SET DR.	87.00
LILIPUT 10501 STREAMLINED 4-6-4	130.00
RIVAROSSI — The Fabulous G.G.1	45.00

LAY-BY BY POST IS AVAILABLE ON MAIL ORDER GOODS.

At last! Realistic Scale Speeds



AP7000 AUTOPULSE
THROTTLE

Add a new dimension to your layout with this remarkable electronic controller. Drive your trains smoothly with speeds as slowly as ¼" in 30 seconds using throttle only (similar to rheostat) or . . . switch to "Inertia"; set the throttle and watch the train slowly build up to pre-set speed. Then bring it to a gradual stop or select from 3 other brake speeds.

- Fully protected electronic circuit.
- 2 year guarantee.
- $35.16 from dealers in your State.

For further information, send 9" x 4" S.S.A.E.

TEMPEST ELECTRONICS
33 Borg St., Scoresby. Vic. 3179. Tel.: 763 5584

HIGHWAY CROSSING FLASHER UNIT WITH BELL

NEW! NEW!

Electronically controls the flashing of your crossing lights and its own realistic bell sound–just like the prototype. 2 year guarantee. Only $24.50 from your retailer.

TE TEMPEST ELECTRONICS
33 Borg Street, Scoresby. Vic. 3179. Telephone: 763 5584

MANSFIELD HOBBIES

100 Pacific H'wy,
Waitara, 2077
Phone 487 3188

Lay-by Bankcard
Trade-ins Repairs

MARKLIN SPECIALISTS

Railroad Supplies: Lima, Hornby, Wrenn, Roco, Bachmann, Arnold, Rivarossi, Locomotion, H & M, Protype, Piko, Model Power, AHM, Peko, Ratio, Roundhouse. **Trackside kits, many makes. Books:** Kalmbach, Carstens, Australian Model Railroad. Scratch Builders' Supplies: K & S, Plastruct, Kadee, X-acto, X-po, Zona.

COME VISIT US, IF WE DON'T STOCK IT, WE'LL TRY AND GET IT FOR YOU! OPEN THURSDAY NIGHTS AND SATURDAYS.

EXPRESS MAIL ORDER

FOR

RIVAROSSI

WE HAVE EXTENSIVE STOCKS OF RIVAROSSI HO IN EUROPEAN AND USA PROTOTYPES AND 'N' IN USA PROTOTYPE.

WE HAVE EXTENSIVE STOCKS OF RIVAROSSI HO IN EUROPEAN AND USA PROTOTYPES AND 'N' IN USA PROTOTYPE.

Other stocks include: PECO TRACK, POINTS AND ACCESSORIES IN HO/OO AND N — ROMFORD HO/OO WHEELS — LIMA HO AND N — SENTINEL HO FITTINGS.

Current stock/Price lists 30¢ stamps. Please specify if HO/OO or N lists required.

P J P PRODUCTIONS
Since 1938,
20 Daly Street,
GISBORNE, Victoria 3437
Phone (054) 28 2170

H.& E.M. SIMON & SON

MARKLIN
HO & MINI CLUB
PIKO HO
BEMO HO
WRENN OO
RETAIL SALES SERVICE REPAIRS
KITS SCENIC MATERIALS

ELECTROTREN

SHIPMENT ARRIVING SOON
ORDERS BEING TAKEN
YOUR ENQUIRY WELCOME

**23 HARVEY STREET EAST,
WOODVILLE PARK, S.A. 5011.
Ph. (08) 45 1219**

bankcard welcome here

MAIL ORDERS WELCOME

Our H0/00 RANGE INCLUDES:- Rivarrossi, Peco, Wrenn, Lima, Bachmann, Airfix, Flieschman, Marklin, Roco, Tyco, Hornby,

N GAUGE:- Arnold, Peco, Minitrix, Rivarossi, Kadee.

KITS, BOGIES & COUPLINGS From:- Kadee, Protype, Volmer, Faller, Friedmont, M.R.C., Superquick, Builderplus, Airfix.

DECALS . . . PAINTS . . . BRUSHES . . . TOOLS . . . BACKGROUND SCENES . . . SCENIC MATERIALS . . . KALMBACH BOOKS and MAGAZINES . . . A.M.C. PRODUCTS

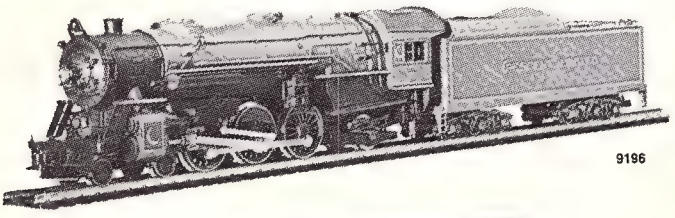
— MAIL ORDERS —

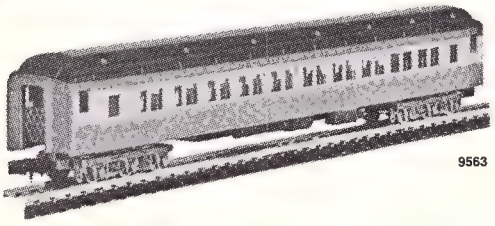
MORGANS HOBBIES
59 BOUNDARY ROAD, DUBBO

. . . . . Serving the West . . . . . .

NEW RELEASES

a Mixed Bag from A.M.C.





RIVAROSSI *N*

NEW LOCOMOTIVES IN THE N GAUGE RANGE

9196 Heavy Pacific, Southern "Crescent Ltd.", Green -- $65.00
9197 Heavy Pacific, Milwaukee "Chippewa Hiawatha" - -- $65.00
9198 Heavy Pacific, A.T. & S.F., Black -- -- -- -- -- $59.95
9199 Heavy Pacific, B. & O. "Capitol Ltd.", Blue -- -- $59.95

NEW ADDITIONS TO THE N GAUGE RANGE OF COACHES $6.25

9556 Baggage - B. & O.
9557 Baggage - Milwaukee
9558 Baggage - Crescent Limited
9559 Baggage - Santa Fe
9560 Baggage - Pennsylvania
9561 Day Car - B. & O.
9562 Day Car - Milwaukee
9563 Day Car - Crescent Limited
9564 Day Car - Santa Fe
9565 Day Car - Pennsylvania
9572 Combine - Crescent Limited
9573 Diner - Crescent Limited
9574 Pullman - Crescent Limited

9575 Observation Car - Crescent Limited $6.95

* * * * * * * * * * * * * *

ROUNDHOUSE HO/00

1516 "3-in-1" kit - Snow Grab $9.50

HIGH SIDED 26' ORE CARS $4.50
1701 Undecorated 1702 Southern Pacific

LOW SIDED ORE CARS $4.50
1711 Undecorated 1712 Southern Pacific 1713 Union Pacific

* * * * * * * * * * * * * *

KALMBACH BOOKS

12036 "The abc's of Model Railroading .. $4.50

All New Edition -
12013 "Small Railroads You Can Model" .. $4.25

* * * * * * * * * * * * * *

now back in stock

PECO PUBLICATIONS

LOCOMOTIVES IN OUTLINE - GWR - C.J. Freezer
77 4mm scale drawings covering most popular GWR locomotives -- -- -- -- -- -- -- -- -- -- -- $5.00

DOWNESPLANS Country Buildings - Alan Downes
Large format, 28 pages of plans and photos with detailed information on construction -- $3.00

ERICPLANS
Formerly published as "Ericplans" Nos. 1, 2 & 3 now incorporated into a single volume - -- -- $3.50

RATIO HO/00

COACH KITS - L.M.S. (LNWR) 50' CORRIDOR ARC ROOF $12.50
5730 All Third 5732 Composite
5733 Brake/Composite 5734 Brake/Third

UNPAINTED CAST METAL FIGURES $1.50
MF/401 Guards/Shunter Pack MF/403 Seated Male Passengers
MF/404 Seated Female Passengers

BRASS BUFFERS (COACH)
CA/430 Brass Buffers - Set of 4 . .. . .70c

* * * * * * * * * * * * * *

The ideal book for beginners!

THE abc's OF MODEL RAILROADING

from the pages of Model Railroader

* *

Tannen Trees

7650 Trees for 20c each. Each Tannen pack of kit parts will make up to five trees. Tree sizes may be varied to suit requirements.
.. .. Per pack $1.50

* *
* *

from good hobby shops everywhere

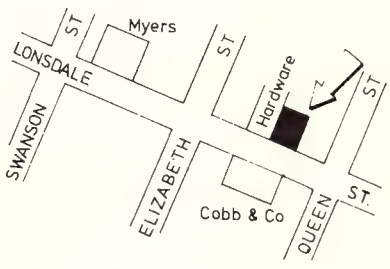
For Trade & General Enquiries: AUSTRALIAN MODEL CRAFT CO., 577 DEAN ST., ALBURY, N.S.W. 2640 (P.O. Box 118)

* * * * * * * * * * * * * * * * * *

* *Prices shown above are recommended prices only.*

ARCADE HOBBIES

SHOP 10, FIRST FLOOR
LONSDALE STREET PLAZA
399 LONSDALE STREET
MELBOURNE 3000
PHONE (03) 60 1803



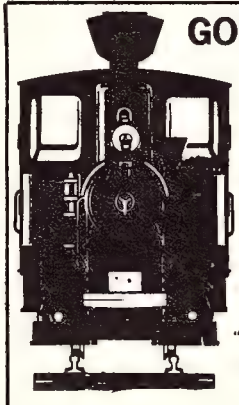
BJ MODELS STRUCTURES
RAIL TRANSPORT MUSEUM
TRANSFERS
LINING TAPE
FLEXI-GRIT FINISHING FILM
TRIANG-MINIC CARS, TRUCKS, TRACK
MEHANOTEHNIKA, PECO, LIMA, RATIO, SLATERS, ROUNDHOUSE, MRC, KADEE, HELJAN, LIFE-LIKE, AND CAN IMPORT ANY ITEM IN THE WALTHERS' O, N, & HO DECAL
AND MILITARY MINATURE CATALOGUES

YOUR 48 HR MAIL ORDER SPECIALISTS

bankcard
welcome here

ARCADE HOBBIES.

GOSH GAUGE!



We've decided that the G in our name stands for Gosh! 'cause that's what everyone says when they see it. You will too. Send $2.00 for our full descriptive brochures.

·L·G·B·

"The World's First and only Indoor-Outdoor Railway."

L.G.B.
AGENTS

P.O. BOX 527,
MANLY. 2095,
AUSTRALIA.
PHONE. (02) 943280

HO/OO & N GRANULATED CORK
HO/OO & CORK UNDERLAY
15 ft $3.50
SCENIC ROCK CORK $2.50
'LIGHT SOLD' SOLDERING IRONS
RATED 12v 18w $11.60

We STOCK:
LIMA, HORNBY, LIFELIKE, POLA KITS, CAVALCADE MINIATURES STEEL-WHEELS, PECO PLASTICARD, WRENN TRACK.

GIFFORD PRODUCTIONS

118 ST. KILDA ROAD,
ST. KILDA. 3182
Phone: 534 3462.

Our N.S.W. Rep.
Ian Linsey

GREENPOINT TOY & HOBBIES

SHOP 14, BAYSIDE CENTRE,
GREENPOINT. 2250
Phone: (043) 691013

We STOCK:

HO/OO	N
HORNBY	LIMA
WRENN	BACHMANN
LIMA	MODELPOWER
TYCO	ATLAS
BACHMANN	RIVAROSSI
MODEL POWER	PECO

KITS:
KIBRI, POLA, AIRFIX, TYCO, FALLER, HELJAN, HERPA, HORNBY, REVELL, LIFELIKE.

RAIL TRACK:
HORNBY, PECO, LIMA, TYCO.

FIGURES:
HO – PREISER, MERIT.
N – PREISER.

REPAIRS GLADLY DONE

El Toro Toys

Christmas Specials

Roco HO

4149 BR 1189 Austrian Crocodile	$79.95
4112 Steam Loco BR 58 2-10-0	$79.95
4131 A El. Loco BR 144	$39.95
4154 Diesel Loco BR 290	$37.95
4152 Belgian Diesel BR 59	$32.50
4155 Dutch Freight Diesel 2200/2300	$32.50
4289-4293 the Pikes (Die Hechte) Passenger Coaches	$10.50
4368 Dutch Milltipper of NS. VAM	$ 6.95

Roco N gauge

2154 BR 144 DB Green	$32.50
2156 Belgian Diesel Nr 59	$29.95
2150 German Diesel BR V215 Red/ Turquoise	$29.95
2250-2252 3 Axle Coach	$5.95

Roco American Diesels

SD 35, SD 24, GP 40, F 7 All fitted with 5 pole motors and twin flywheels	$25.50

Jouef

8912 Jouef BR Diesel Loco Mk 4 Blue	$27.50
5751 Intercity coach Mk 3 1st Class	$ 6.95
5752 Intercity coach Mk 3 2nd Class	$ 6.95

Also available Piko trains in HO and N gauge Quality from the GDR. Catalogues $1.50 + postage.

Metric screws and nuts.
Straight gears cut in module.
Turning and Milling jobs done.

Send S.A.E.
Mail orders welcome.
43 Currawang Street,
Concord West 2138

WALTHERS 1979 HO CAT

This catalogue should be available by late January at $5.00 each. It is currently being printed with many more pages.

Postage: Qld $1.15; NSW $2.25; All other $2.60.

Also available is the O Scale Cat for 1978-79 at $4.00 and the current N Catalogue is again in stock at $2.00.

REMEMBER . . .We can get it from Walters.

SCA ELECTRONICS

Transistorised Controllers are now available in stock. Small and compact with a 4" × 2" screen printed face, 2 amp capacity — Suitable for HO and N.

Panel Mounted	$23.95
Hand Held	$26.95

KADEE 'N'

Full stocks currently available, all scales. Prices have been increased in the U.S. and we have old stock at old prices.

Box Cars. S.Fe 5 pack	$28.75
Hopper. Clinchfield. 5 pack	$34.30
Flat. Weyerhauser	$5.50
Flat. Fishbelly. SP, NYC, N&W, UP, D&RG	$4.75
UP Yellow	$5.50
Reefers from	$6.65

All conversions in stock.

'N' TRAIN SETS $28.50

Loco and three wagons, oval of track, battery controller. Locos available: 0-6-0 Tank, GP40, RSD 15 (S.Fe, BN, RI), GP40, FA1, RSD15 available seperately. $19.95 each.

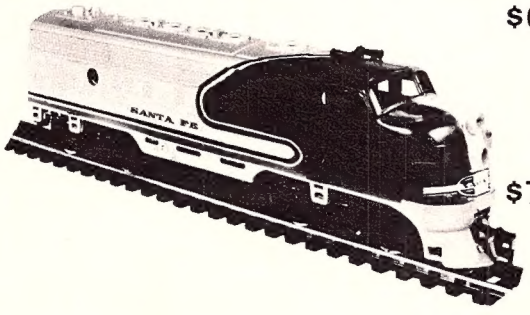
SUPPORT NTRACK

J & J HOBBIES
P.O. Box 155, BEAUDESERT
QUEENSLAND. 4285.
Ph. 075 41 1014 A/H

CHRISTMAS SPECIALS

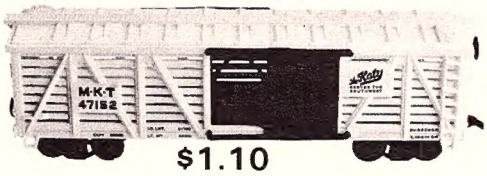
8301
0-4-0 Dockside
Steam Loco

$6.95

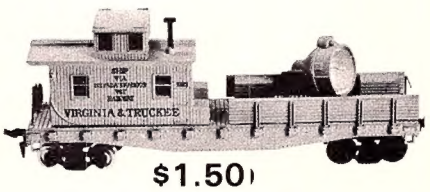


$7.95

$1.95



$1.10



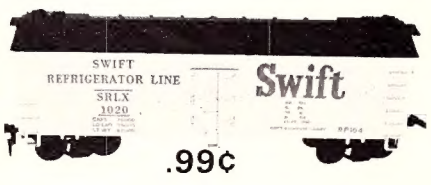
$1.50

ONLY AVAILABLE WITH HORNBY-TYPE COUPLERS

$1.75

$9.98 **8283** GP38-2 Diesel Loco

TYCO BOGIES WILL FIT .85¢ PAIR.



.99¢

AVAILABLE ONLY UNTIL SOLD OUT

Peco, Roco, Bachmann, Liliput, Athearn, Wrenn, Hornby, Jouef Piko, Tyco, Life-like, Mehanotehnika, Model Power, A.H.M., Herkat, Minitrix, Lima, Sekisui, Con-cor,

Huge Range of Accessories include:
Plastruct, Heljan, Pola, Kibri, Builder-Plus (Cardboard Kits) Wiking Vehicles, Herpa Kits, Preiser People, M & J Decals, Kadee, Heki, A.M.R.I. Accessories, Arwe, L.A.R. Drills, Oryx Soldering Irons, Scope Irons, Humbrol Craft Tools, Modeltronic Micro Sound System, Merit People, Faller, Airfix, Revell,

Publications: Kalmbach Books, Carstens Books, Various Monthly.
Transformers & Equipment.
Hammant & Morgan Duette, Clipper, Flyer, Powermaster, Control unit, Rectifier unit, Commander Module, Resistance Controller S.M. 3 Point Motors etc., Mainline Transistor Controller, Tempest Autopulse Inertia Throttle, Eda Throttle Power Pack, Toy Traders, Hornby, Tyco etc.
JUST ARRIVED: Heljan Turntable Motorizing Unit.

BANKCARD ACCEPTED: Mail Order Enquiries Welcome (Send S.A.E.)

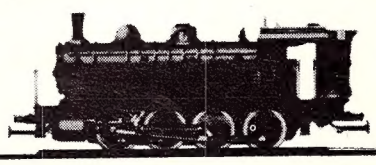
BRASS LOCOS & FRIEDMONT KITS NOW AVAILABLE

TOYMAN IMPORTS HOBBY CENTRE

A DIVISION OF TOYMAN IMPORTS PTY. LTD.

76 RAILWAY STREET
YENNORA, N.S.W., 2161

Phone: (02) **632 5002**



HOBBYSHOP DIRECTORY

N.S.W. — SYDNEY

For the model railroad specialist, where the emphasis is on the modeller and his requirements. Regular shipments of specialist lines will arrive each month.

KEITH HUDSON'S MODELLERS WORLD

75 Goulburn St, Sydney, 2000.
Ph (02) 212 1667

N.S.W. — SYDNEY

Fantastic models, shown by enthusiasts. Tremendous range OO, HO & N sets, loco's, track and accessories. Mail Orders, Layby's and Bankcard welcome.

THE FANTASTIC MODEL SHOPS

34 Angel Arcade, Ash St, Sydney, 2000 and 42 Park St, Sydney, 2000. Ph. (02) 232 2318.

N.S.W. — MERRYLANDS

We try our most to stock a host of HO, OO, 009, TT&N scale equipment. Why not pay us a call and have a brouse 'round or drop us a line for our latest price list. Mail order a pleasure.

ALCE'S HOBBY SHOP

Shop 6, 20 McFarlane St, Merrylands (P.O. Box 257). Ph. (02) 682 3775.

N.S.W. — LIVERPOOL

Come and see the Fantastic range of Kits and Model Railway goodies at our new address. Laybys, Bankcard and even cash welcome.

THE FANTASTIC TOY & MODELSHOP

No 1, Woolworths Phoenix Plaza, Liverpool, 2170.
Ph. (02) 602 1256.

N.S.W. — BLACKTOWN

We are the store for the enthusiast as well as the newcomer. We carry a full range of all HO & N gauge including Athearn, Rivarossi, Arnold, Roco, Roundhouse, Lima, Hornby as well as Locomotion products, AMRI products, Kadee, Protype, Peco and Shinohara track to mention a few. We dont dabble in hobbies, we specialise.

MODEL MART

Post Office Arcade, Flushcombe Rd, Blacktown, 2148. Ph. (02) 621 4502.

W.A. — MT LAWLEY (Perth)

For all model railways
model planes
Meccano sets, etc
Scalextric
Plastic kits, etc

JACK STANBRIDGE'S HOBBY SHOP

19 Guildford Rd, Mt Lawley (at the subway).
Ph. (092) 718929.

N.S.W. — WOLLONGONG

Don't let the name fool you. We are serious modrail stockists. As well as standard lines, we stock Marklin — Peco — Shinohara — Athearn — Kadee — Roco HOn3 (HOe) — Kadee 'N' — Kalmbach hard & soft cover M.R. books — R.M.C /Railfan — AHM — Roundhouse — All brands repaired (subject to parts availability) Mail Order Welcome.

TRAINMASTER PRODUCTS

86 Princes Hwy. Fairy Meadow, 2519.
Ph. 840382

VICTORIA — EAST KEW

SPECIALISED MODEL RAILWAYS
BRITISH 'O', 'OO' & 'N'
CONTINENTAL 'HO' & 'N'
AMERICAN 'HO' & 'N'
AUSTRALIAN AS AVAILABLE
Accessories a Speciality. Modellers Tools and Equipment

HOBBYCRAFT

1351 Burke Road, East Kew, 3102. Mail Order P.O. Box 88, Ivanhoe, 3079. Ph (03) 80 3241.

S.A. — ADELAIDE

The Model Railroad Headquarters for S.A. Specialising in HO & N scales — Hornby — Rivarossi — Roundhouse — Athearn — Peco — Graham Farish — Ratio — Shinohara — Kadee. Railroad books, magazines and records. Large scenic range: Faller — Vollmer — Heljan — Kibri. BANKCARD, MAIL ORDER and REPAIR SERVICE.

BRIDGLANDS HOBBIES

91a Gawler Pl, Adelaide, 5000. Ph (08) 2124297.

N.S.W. — PUNCHBOWL

We stock HO-OO and N gauge model trains, Accessories and kits.

PUNCHBOWL HOBBY CENTRE

545 Chapel Road, Bankstown
Phone (02) 709 5082.

VICTORIA — MENTONE

A wide range of model railway supplies in OO—HO & N, including Hornby, Lima, Wrenn, Life Like, Bachmann, Peco, Faller, Herpa, Pola and scenic materials.

THRIFT PARK TOYS

16 Lower Dandenong Rd., Mentone, 3194

S.A. — WHYALLA

Stockists of Lima, Hornby, AHM, Bachmann, Peco, Roco, Herpa, Pola Kits, ZPL, Rivarossi, Tempest Auto-Pulse Controllers, Tyco and Protype. Mail Orders Welcome. Write or Call on us.

WESTCOAST MODEL SUPPLIES

51a Playford Avenue, Whyalla 5600
Ph (086) 45 0679 AH

N.S.W. — WOLLONGONG

Fleischmann, Seuthe Smoke Generators, Hag, Marklin (3 rail) Hamo, Vollmer, Peco, Locomotion Controllers, Wiking, Rivarossi, Superquick, Kalmbach. See advertisement on other page. MAIL ORDER, LAYBY & BANKCARD.

BILL WEBB

Australia Wide Mail Order
P.O. Box 68, Figree, 2525 or 21 Mears Ave, Mangerton, 2500. Ph. (042) 29 5824

VICTORIA — SYNDAL

For all your hobby supplies, Hornby, Peco, Lima, Campbell, North Eastern timber, Athearn, etc.

N-K HOBBIES

264 Blackburn Rd, Syndal, 3149.
Ph (03) 233 2398

QUEENSLAND — BRISBANE

RAILWAYS EXCLUSIVELY. Scratchbuilders parts by Kemtron, Cal Scale, Selleys. Wood shapes, planks, roof sections, trucks, couplings, wheels. Kits and RTR by most scale brand names. O — HO — N and Narrow Gauge in these scales. Roundhouse spares. Mail Orders Welcome.

AUSTRAL MODELCRAFT

101 Laura St, Ekibin. Mail to PO Box 60, Annerley 4103. Ph (07) 48 3377.

N.S.W. — NEWCASTLE

BIG RANGE HO, OO & N gauge model railway equipment. Also stocks of Rivarossi, Hornby, Lima, Peco, Kadee, Roundhouse, Minitrix, Arnold Rapido, Athearn, Superquick and many others. Full range of building kits. Sales & Prompt Repairs. Authorised Hornby Servicing Agents.

VIC BARNES' HOBBY CENTRE

213 Lambton Rd, New Lambton, 2305.
Ph (049) 521886.

VICTORIA — EAST HAW...

Custom built tramcars in 4 mm, ¼ inch and ½ inch scale. Tramway layouts, tram kits. General Hobby kits. Second hand Hornby Dublo and 'O' gauge tinplate bought and sold.

W.E.L.T. Tramway Workshops (Model Makers)

475 Burke Road, East Hawthorn 3132.

ENGLAND — LONDON.

TAX FREE, careful packing, fast airmail service, all well known British & Continental brands from stock, phone or write for details.

HADLEY HOBBIES

131 Middlesex Street. London. E.1. England. 283-9870.

N.S.W. — DUBBO

Serving the Model Railroad Enthusiast in the West:- Large range of Rivarrossi, Arnold, Peco, Kadee, Protype, Roundhouse, Friedmont, MRC, Lima, Wrenn, Hornby, Airfix, Books, Accessories, Tools, Paints, AMC Products.

MORGANS HOBBIES.

59 Boundary Road, Dubbo.

VICTORIA — BOX HILL

THE ENGINE SHED

5 Carrington Road, Box Hill 3128.
Phone (03) 89 7027.

MARKET PLACE

Continued from page 49

EUROPEAN 2 rail H0 locos and rolling stock. Mint condition, original boxes. Roco, Fleischmann etc. SAE to C. Eecen, PO Box 15, Yarrowonga, Vic 3730.

HORNBY, Lionel and other makes Gauge '0'. Trains and accessories, clockwork, steam and electric, range 1925-1978, many collectors items, list from Phil Howarth, Box 186, Miranda 2228.

WANTED

Athearn H0 4-6-2 in any condition. (This loco made from about 1963) Also Trains magazine pre 1950, individual copies or bound volumes OK. Phone (03) 874 4510 after 6 pm.

TENDER urgently required for Bassett-Lowke 'Duke of York', in any condition. Also buying Hornby 0 gauge accessories. Write or phone Eden, 85 Childers St, Nth Adelaide 5006 or (08) 267 3184.

TRIANG coaches (two) numbered R332 G.W.R. clerestory roof, in good condition. F. Rana, Clayton Nursing Home, PO Box 67 Norwood 5067.

BERG'S brass Tin Hare and trailers. Painted or unpainted. Write — Savery, PO Box 25, Dee Why, NSW 2099 or Ph (02) 99 2833 evenings.

NSWGR C36 class roundtop in mint or good condition. Will pay up to $190. Phone (02) 85 3788.

BACK issues of ARHS Vic Div 'Divisional Diary', predecessor to Newsrail. Must be in reasonable condition, also wanted plans for V.R. rollingstock, locos and pass. cars. Write to Tim Ellis, PO Box 160, Moe, Vic 3825.

WANTED: Gauge 1 model railway equipment. Locomotives, rolling stock etc. No LGB items please. Write to J. MacMicking, 247 Eastern Valley Way, Middle Cove 2068 or Ph (02) 95 5988.

WANTED NSWGR 48 class (Bergs) in good condition and working order. Ph (048) 21 4676.

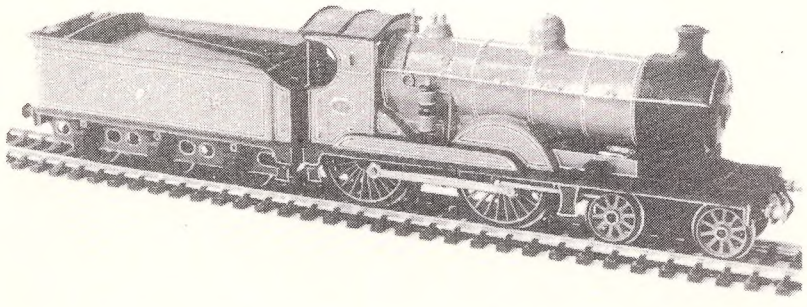
N.W.S.L. Logging Mallets, W.S.M. UP 4-10-2, L.M.B./ALCO Models U-50's, Alco Models UP-855A units, Red Ball FM 'Erie Builts', Powering Kits suitable Balboa/W.S.M. PA/PB units, 'Basket Case' brass diesels suitable spares. C. Riley, C/o Box 4097, GPO, Sydney 2001 or phone (02) 669 6811 b/h or (02) 622 4839 ah.

GAUGE '0' trains. Hornby, Lionel, Ferris, Bassett Lowke, Australian Prototypes. Top prices for good material. Urgently need Hornby 6 wheeled tenders. Phone (02) 913 8422 after 8 pm or write W. Baker, 1303 Pittwater Rd, Narrabeen. 2101.

Don't just ask for cast loco kits, specify

NU-CAST

the name for all that's best in 4mm scale locomotive kits

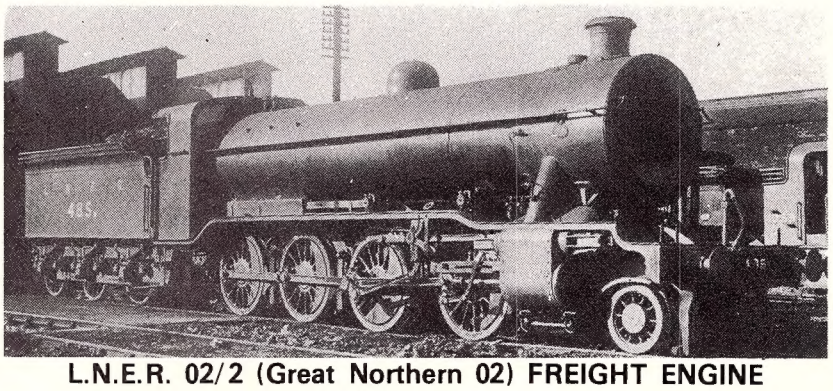


The latest addition to the NU-CAST range. These fine loco's covered a wide area during their life and lasted well into the BR days.

Kit No NC 204 ..... $47.95

L.M.S. (Caledonian) PICKERSGILL 4-4-0 ENGINE

Required 26 m.m. wheels, 14 m.m. bogie wheels, 16 m.m. tender wheels, gears and XO4 type motor.



Original version of the Great Northern heavy freight loco's which first started service in 1918.

Kit No NC112 ..... $60.10

L.N.E.R. 02/2 (Great Northern 02) FREIGHT ENGINE

with G.N. cab and tender.
Requires 18 m.m. wheels, 12 m.m. pony wheels, 16 m.m. tender wheels, gears and XO4 type motor.

Other kits in the NU-CAST range include:
LNER B1; C13; G5; J15; J21; J26/J27; K2; N2; Q6; V2; Y7;
SR/LSWR 'Jubilee' GWR 54/64/74xx Pannier Tank

All NU-CAST kits are available from ALCE'S HOBBYSHOP

Shop 6, 20 McFarlane St, Merrylands 2160. Ph (02) 682 3775.

Trade Enquiries Welcome

KIT BUILDERS
SCRATCHBUILDERS – KITBASHERS.

Give that plastic building an Australian look! Put a corrugated or tray roof on it and see the difference!

Roofing and siding sheets – Corrugated H/0 only – Tray H/0 & N. Sheets 150 x 75 mm. Alum .004" – 10 Shts for $2.50. Copper .006" – Corrugated only – 10 Shts for $6.00. Min Order 10 Shts. Scribed Wood 8" & 12" plank – 300 x 75 x 3mm – 5 Shts for $1.75. Cork Track Underlay 900 x 31 x 3mm – 5 for $2.10. Rail cutting guides – Combined H/0 & N – $3.50 each.

All post paid – Aust. Reviewed AMRM – March/April, 1978.

Trade and Club Discounts available.

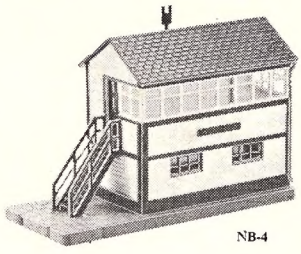
G. DUNCAN. 18 Waratah Avenue. Glenhuntly. VIC. 3163.

MODEL MASTERPIECES LTD.

In AUSTRALIA

CHALK CRK. BRIDGE
CHEESMAN DRUG CO.
GAZETTE BUILDING

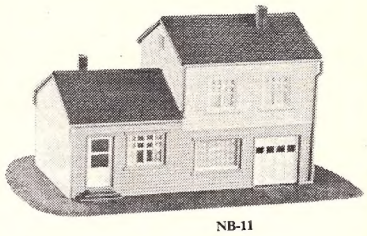
All available now –
CHI Products (Imports)
4 View Street, Upwey. 3158.



NB-4

PECO

Mainly N



NB-11

SETRACK

ST-1	Full Straight Track, Box 16	9.50
ST-2	Short Straight 2/3rds " "	9.50
ST-3	Full Curves, Box of 16 ----	11.00
ST-4	Half Curves, Box of 16 ----	11.00
ST-5	Point, Right Hand, small radius, insulfrog --------	5.00
ST-6	Point, Left Hand, small radius, insulfrog --------	5.00
ST-7	Short Crossing 25° insulfrog	5.00
ST-8	Sleeper-built Buffer Stop(2)	.85
ST-9	Power Connecting Clips (4) -	1.25

FLEXIBLE TRACK - 906mm length

SL-300X	Wood-grained sleepers & nickel silver rails -----	2.00
SL-300S	Wood-grained sleepers & steel rails ----------	1.25
SL-302X	Concrete sleepers & nickel silver rails -----	2.00
SL-302S	Concrete sleepers & steel rails ----------	1.25

POINTS (Wood-grained sleepers & nickel silver rail)

SL-384X	Catch Point, Right Hand --	3.00
SL-385X	Catch Point, Left Hand ---	3.00
SL-386X	Curved Point, Right Hand -	5.75
SL-387X	Curved Point, Left Hand --	5.75
SL-388X	3ft Radius Point, R/Hd. --	5.75
SL-389X	3ft Radius Point, L/Hd. --	5.75
SL-391X	18" Radius Point, R/Hd. --	5.25
SL-392X	18" Radius Point, L/Hd. --	5.25
SL-394X	Long Crossing ----------	5.25
SL-397X	Long Y Point ----------	5.25

FIXINGS & ACCESSORIES

SL-310X	Metal Rail Joiners (24) --	.95
SL-311	Insulated Rail Joiners (12)	.95
SL-330	Decouplers (2) ----------	.90
SL-336	6ft Way Gauge ----------	.15
SL-340	Rail-built Buffer Stop Kit (2) ----------	.75
NS	British N Scale Rule -----	1.00

FOAM BALLAST UNDERLAYS

SL-350 For Track, per Roll (16') - 3.25

Point Underlays, pks of 2	Pk.	2.00
SL-348	For ST-5	
SL-349	For ST-6	
SL-351	For SL-391X	
SL-352	For SL-392X	
SL-353	For SL-397X	
SL-354	For ST-7	
SL-361	For SL-384X	
SL-362	For SL-385X	
SL-368	For SL-386X & SL-388X	
SL-369	For SL-387X & SL-389X	
SL-370	For SL-394X	

ROLLING STOCK ITEMS

NR-100	Wheels Pkt of 2 sets ------	.80
NR-102	Couplers E.L.C. 2 pairs ---	.70
NR-121	Wagon Chassis 10ft w/base --	1.35
NR-121B	Brake Van Chassis 10' w/b	1.50
NR-122	Wagon Chassis 15ft w/base	1.50
NR-122B	Brake Van Chassis 15' w/b	1.75
NR-123	Chassis w/wooden type solebars, 10ft w/base ---	1.35

ITEMS FROM THE HO/OO RANGE ALSO APPLICABLE TO N GAUGE

SL-14	Track Fixing Pins Pkt ----	.75
PL-10	Point Motor ----------	2.75
PL-11	Adaptor Base for PL-10 -----	.75
PL-16	Point Operating Switch -----	1.95
PL-17	Probe for Point Operation --	1.50
PL-18	Studs & Tag Washers (25) ---	1.50
PL-20	On/Off Isolating Switch ----	1.35
PL-21	Double Press Switch --------	.90
PL-40	Wheel Cleaning Brush & Scraper ----------	3.50
PL-41	Track Cleaning Block -------	1.10

WAGON LOADS - all types ------- $1.00

NR-200	Sand-natural-buff
NR-200R	Sand-red/brown-Devon etc.
NR-200W	Sand-white/grey-lime etc.
NR-201	Coal-natural-black
NR-201G	Granite-grey-ballast etc.
NR-201R	Granite-red-ironstone
NR-202	Bricks-red
NR-202T	Bricks-terra cotta
NR-202B	Bricks-blue
NR-203	Timber-natural
NR-204	Barrels-dark brown
NR-205	Crates-timber colour
NR-206	Coke Extension Boards --- $1.35

STRUCTURE KITS & PARTS

NB-1	Lineside Huts (5) ---------	3.00
NB-4	Signal Box, wooden type ----	2.50
NB-5	Single Track Engine Shed ---	2.75
NB-6	Goods Shed, brick & timber -	2.50
NB-9	Cedar Wood Bungalow, small -	2.00
NB-10	Cedar Wood Bungalow, large -	2.00
NB-11	Split Level House ----------	2.50
NB-26	Platform Edging - Brick ----	1.25
NB-27	Platform Edging - Concrete -	1.25
NB-28	Platform Edging - Stone ----	1.25
NB-31	Single Tunnel Portal (2) ---	2.00
NB-32	Double Tunnel Portal (2) ---	2.00
NB-33	Single Road Overbridge (2) -	2.00
NB-34	Double Road Overbridge (2) -	2.00
NB-39	Girder Bridge Sides 4½" (4)	1.35
NB-40	Stone Walling approx. 50 sq. inches ----------	2.00
NB-42	Brick Walling - Red --------	2.00
NB-43	Brick Walling - Terracotta -	2.00
NB-44	Brick Walling - Blue -------	2.00
NB-45	Flexible Field Fencing -----	1.25
NB-46	Field Gates, Stiles & Wicket Gates ----------	1.35

READY-TO-ROLL LOCOMOTIVE

NL-21 LMS "Jubilee" 4-6-0 Loco w/tender ---------- 69.95

LOCOMOTIVE BODY KITS

NL-3	B.R. Hymek Diesel ---------	
NL-5	B.R. 0-4-0 Side Tank ------	
NL-6	0-4-0 Peckett Saddle Tank -	
NL-7	0-4-0 MW type Saddle Tank -	

FULL COLOUR BACKGROUND SHEETS

Size 22" x 7" Each ------ .70

SK-31 Distant Hills: SK-32 Distant Cultivated Hillside: SK-33 Distant Hills & Crops: SK-34 Hill, Tree & Foreground: SK-35 Village; SK-36 Town: SK-37 City: SK-38 City Extension

READY-TO-ROLL WAGONS - 10ft Wheelbase Railway Company

MINERAL Wagons, 5-Plank --------- $2.50
3421 (NR-40M) L.M.S.
3422 (NR-40W) G.W.

COAL WAGONS, 7-Plank ---------- $2.50
3402 (NR-41S) S.R.
3401 (NR-41M) L.M.S.

COAL WAGONS, steel type --------- $2.50
3411 (NR-44W) G.W.
3412 (NR-44E) N.E.

REFRIGERATOR & BOX VANS --------- $2.75
3431 (NR-43W) Box Van, std. G.W.
3432 (NR-43E) Box Van, std. N.E.
3441 (NR-42S) Banana Van, S.R.
3442 (NR-42E) Refrigerator, N.E.

CATTLE VANS ---------- $2.75
3451 (NR-45M) L.M.S.
3452 (NR-45S) S.R.

BRAKE VANS ---------- $3.00
3461 (NR-48M) L.M.S.
3462 (NR-49E) N.E.

READY-TO-ROLL WAGONS - 10ft Wheelbase Private Owner

MINERAL WAGONS, 5-Plank --------- $2.75
3423 (NR-P80) Garswood
3424 (NR-P81) Mendip
3425 (NR-P82) Gresley
3426 (NR-P83) Dunsdon

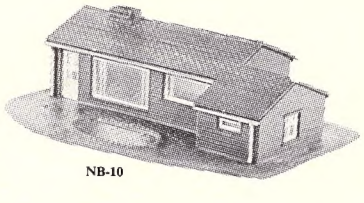
COAL WAGONS, 7-Plank ---------- $2.75
3405 (NR-P91) Park End
3406 (NR-P92) Kingsbury
3407 (NR-P90) Ward

COAL WAGONS, steel type --------- $2.75
3403 (NR-P100) Charringtons
3404 (NR-P101) Denaby

LIME VANS ---------- $3.25
3474 (NR-P111) Dowlow
3475 (NR-P112) Crawshay
3476 (NR-P113) S.L.B.

SALT VANS ---------- $3.25
3484 (NR-P120) SAXA
3485 (NR-P121) Shaka

REFRIGERATOR & BOX VANS --------- $2.75
3434 (NR-P130) Box Van, Worthington
3435 (NR-P131) Box Van, Bass
3444 (NR-P140) Refrigerator, Fyffes
3445 (NR-P141) Refrigerator, Colmans



NB-10

Prices shown in this advertisement are recommended prices only and there is no obligation for dealers to comply with the recommendation

from good hobby shops everywhere